PAPER TRADE JOURNAL

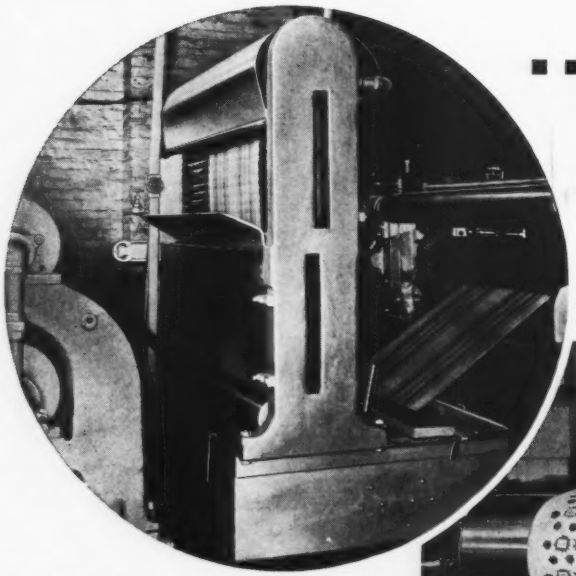
THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

means the Original Patented Asbestos Dryer Felt but asbestos dryer felt does not mean Asten

JULY
21
1938

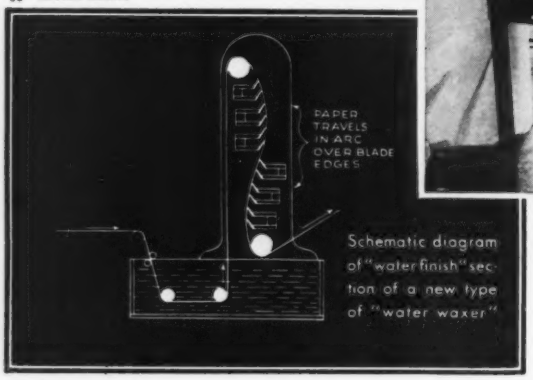
Vol. CVII
No. 3

How to produce Waxed Paper FASTER ...and keep it FREE of ROLL MARKS



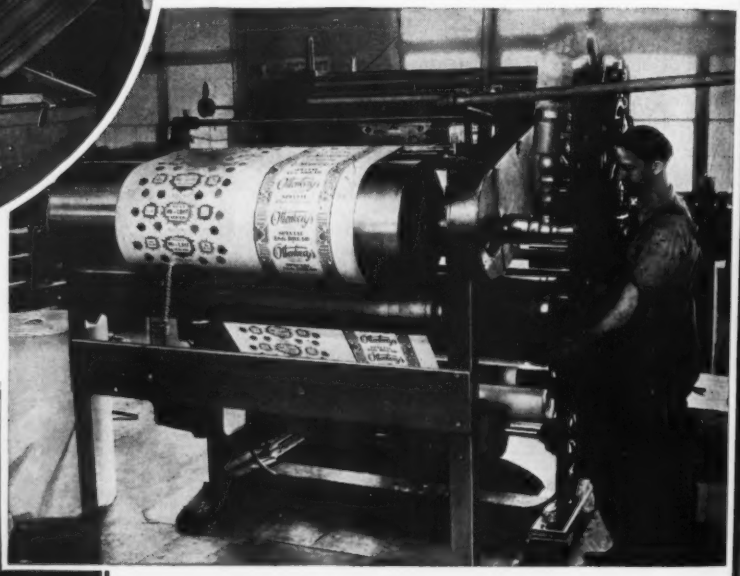
The "water finish" units of the Shartle Brothers Machine Co. are equipped with Monel-covered rolls. The smooth clean surface of the rolls does its part in assuring production of unblemished waxed paper.

(Below) Diagram of Shartle Brothers Machine Co. "water finish" section of a modern "water waxer". The rolls printed white have a welded covering of ⅛" Monel sheet.



Schematic diagram of "water finish" section of a new type of "water waxer"

(Below) By welding a ⅛" thick Monel sheet cover to this 153¼" by 50½" face steel waxed paper chilling roll, its efficiency was improved so that the speed of the machine could be increased by one-third. The advantages of this will be appreciated by manufacturers producing glossy finish waxed paper.



Waxed paper makers... without discarding old and worn rolls... now improve finish and speed production

Equip your waxing machines to turn out a finer product, at higher speed. *Even if your rolls are old and worn, you may still get the desired result without replacing them.* Here's how:

Have your new or old rolls covered with Monel Sheet. The Monel covering is anchored securely to the roll by means of a patent protected welding process developed by Youngstown Welding and Engineering Company of Youngstown, Ohio. The roll is then finished with a smooth, buffed surface.

Experienced paper makers know what *that* means: Monel cannot rust, it is wear resistant and withstands corrosion. Unmarred by rust or corrosion, the surface of the roll *retains* its smooth finish. Thus, more efficient and rapid chilling of wax is attained . . . and the wax finish is free of roll marks.

Your present rolls or new ones can be furnished with Monel covers by any of the prominent paper machine builders. Write for further information on Monel-covered rolls. Ask for "Covered Rolls—a New Development for Industrial Protection" and "Monel-Nickel-Inconel Covered Rolls." Address:

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Standard

RECAUSTICIZING PRACTICE

Processing Steps in The Dorr Recausticizing System

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Lime Slaking
Milk of Lime Degritting
Recausticizing
White Liquor Decantation
Lime Mud Washing
Lime Mud Filtration
Lime Reburning

A practice may be said to be standard when a majority of the recently-built mills employ it—when the users are concerns of recognized standing—and when the tonnage handled attests a demonstrated performance record.

The Dorr Continuous Recausticizing System has been the choice of over 30 soda and sulfate mills. Over 4500 tons of pulp making capacity are installed or on order. 80 per cent of the new Southern kraft mills have adopted it.

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Experience such as this has no substitute

Other Dorr Equipment for Pulp & Paper

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The ADKA Saveall, an improved white water saveall employing a new principle of froth flotation of stock and filler.

•

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The teletype gives wings to words

2:20 P.M. Boston ticket office of American Airlines. J. G. James: "Give me a seat on Trip 9 to New York, and reserve a berth on The Mercury from New York to Los Angeles tonight."

2:21 P.M. American Airlines clerk: "Yes, sir! . . . You have seat 20 on Trip 9. I'll check New York and let you know at once about your reservations on The Mercury."

2:22 P.M. Airlines clerk dictates by teletype to N.Y.: RESERVATIONS—NEW YORK—3—14—NEED JAMES ONE NEWARK-LOS ANGELES TODAY THE MERCURY ARRIVING NEWARK FLIGHT 9 FROM BOSTON TODAY.

2:23 P.M. On the same connection, the teletype at Boston receives New York's reply: RESERVATIONS—BOSTON—3—14—CONFIRMING JAMES ONE NEWARK-LOS ANGELES TODAY THE MERCURY.

2:25 P.M. American Airlines clerk: "Mr. James, New York advises us by teletype that your reservation on The Mercury is made. You'll be in Los Angeles at 7:50 A.M. tomorrow."

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PAPER TRADE JOURNAL

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PAPER — SIXTY-SEVENTH YEAR — PULP

Established Feb. 17, 1899
Consolidated Nov. 16, 1899
with PAPER TRADE JOURNAL.

Vol. CVII, No. 3 — Thursday, July 21, 1938

Established Sept. 21, 1918
Consolidated Feb. 19, 1925
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Wisconsin Manufacturers Back Sales Plan

Mass Meeting at Rothschild, Wis. on July 21 to be Addressed By D. C. Everest of Marathon Mills—Water Power Tolls Paid By Mills in Wisconsin River Valley — Frank R. Bacon Elected President — Other News.

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., July 18, 1938—Paper manufacturers are assisting in a "Sales Mean Jobs" campaign to be launched at Neenah and Menasha, Wis., with an open-air mass meeting Thursday, July 21. The business men are joining to support the idea originated by George Mason, president of Nash-Kelvinator Corporation, who launched the plan at Lincoln, Nebr., and obtained surprising results. The premise is that, while 25,000,000 persons are on relief, there are 100,000,000 who are able to buy, and a stimulation of purchases by the latter will mean jobs for many others.

D. C. Everest vice-president and general manager of the Marathon Paper Mills Company, Rothschild, Wis., will be the principal speaker at the mass meeting. His selection was made because the Marathon mills have been singularly successful in promoting a similar campaign of their own during the current recession, according to Frank L. Broeren, of the company's Menasha Products division at Menasha, Wish.

S. F. Shattuck, vice-president of Kimberly-Clark Corporation, Neenah, Wis., also has assisted in organizing the campaign. He expressed the belief at a meeting last week, based on the consensus of opinion of leaders of the corporation, that the bottom of the depression has been reached. There has been a reversal of sales trends in one of the Kimberly-Clark departments, he said, due to increased optimism. "Time is playing in favor of the plan," he declared.

A parade is to be held to stimulate public interest, with the mass meeting afterwards.

Water Power Tolls Paid by Mills

Adequate water power for the entire summer season appears evident to most mills of Wisconsin, in contrast to seasonal drought which makes steam and commercial power auxiliaries necessary. An unusual amount of rain, of frequent recurrence, has filled all storage facilities to the point where uniform flow will be possible in the Fox and Wisconsin Rivers.

Storms have caused some damage and flooding, but nothing of a serious nature. A motor was burned out by lightning at the Neenah Paper Company, Neenah, Wis., but operations were not affected.

Mills using water power in the Wisconsin River Valley will pay tolls of $128,857 to the Wisconsin Valley Improvement Company, operators of the reservoir system, according to a schedule filed with the Wisconsin Public Service Commission at Madison, Wis., for approval.

Included in the list are the following tolls: Rhinelander Paper Company, $2,608.30; Tomahawk Pulp Company, $1,048.69; Tomahawk Craft Paper Company, $4,261.73; Wausau Paper Mills Company, $3,434.11; Marathon Paper Mills Company, $4,556.81; Mosinee Paper Mills Company, $3,663.25; Wisconsin River Paper and Pulp Company, $9,452.56; Whiting-Plover Paper Company, $215.32; Nekoosa-Edwards Paper Company, $19,316.30; Consolidated Water Power and Paper Company, $32,598.28, and Wisconsin Power and Light Company, $24,860.94.

F. R. Bacon Heads Combined Locks Co.

Frank R. Bacon of Milwaukee, was elected president of the Combined Locks Paper Company, Appleton, Wis., at a meeting of the board of directors at Milwaukee recently. He succeeds Lewis L. Alsted, who died recently in Chicago from illness with pneumonia. Mr. Bacon is president of Cutler-Hammer Company, Milwaukee, manufacturers of electrical controls. He is a brother-in-law of Mr. Alsted and executor of the Alsted estate.

Hearing to Purchase Dam of Patten Paper Co.

A hearing will be held at Madison, Wis., August 8, by the Wisconsin Public Service Commission to determine whether the City of Kaukauna may purchase the dam of the Patten Paper Company, Limited, on the Fox River at Kaukauna. Purchase of the dam is one of the provisions of a general improvement program undertaken by the Kaukauna municipal utility at an estimated cost of $475,000. The program involves construction of a new hydro-electric plant, which has already received the commission's approval. The city recently bought the Outagamie Paper Company mill of the Patten com-

(Continued on page 18)

TAPPI Will Present An Interesting Program

Papers By Staff Of the Forest Products Laboratory On September 8 And By Staff Of Institute Of Paper Chemistry On September 9 Will Feature Fall Convention Of Technical Association Of Pulp And Paper Industry

The fall convention of the Technical Association of the Pulp and Paper Industry, to be held at Green Bay, Wis., September 8-10, 1938, will feature papers by the staffs of the Forest Products Laboratory, Madison, Wis. and the Institute of Paper Chemistry, Appleton, Wis.

Program of Thursday, Sept. 8, 1938

FOREST PRODUCTS LABORATORY SESSION

(1) "Effect of Growth Variables in the Pulping of Western Hemlock by the Sulphite Process", by G. H. Chidester and J. N. McGovern.
(2) "The Effect of Modified Soda Base Sulphite Liquors in Pulping", by G. H. Chidester and others.
(3) "Chemistry of the Alkaline Pulping Processes V. Effect of Chemical Ratio and Initial Concentration on the Rate of Delignification and Hydrolysis", by S. L. Schwartz and M. W. Bray.
(4) "The Crystalline Arrangement of Holocellulose", by G. J. Ritter and R. L. Mitchell.
(5) "Chemical Composition of Holocellulose", by G. J. Ritter and Wm. Van Beckum.
(6) "Lignin Investigations", by E. E. Harris and others.

Program of Friday, Sept. 9, 1938

INSTITUTE OF PAPER CHEMISTRY SESSION

(1) "Sulphite Pulping of Douglas Fir", by E. B. Brookbank, Jr.
(2) "An Investigation of the Flocculation of Papermaking Fibers", by J. C. Woolwage.
(3) "A Fundamental Study of the Removal of the Constituents of Wood in the Alkaline Cooking Process", by F. E. Brauns and W. S. Grimes.
(4) "The Influence of Humidity on Changes in Diameter and Length of Sulphite Fibers", by J. P. Widener.
(5) "An Investigation of the Optical Scattering and Absorption Coefficients of Dyed Hand Sheets and the Application of the I.C.I. System of Color Specification to These Hand Sheets", by W. J. Foote.

Program of General Session, Saturday, Sept. 10, 1938

(1) "The Study of the Absorption of SO_2 in Water", by Charles Reilly, Kimberly-Clark Corporation.
(2) "Studies of Formation and Paper Uniformity", by Homer Malmstrom, Kimberly-Clark Corporation.
(3) "Data on Heat Exchanger Performance", by B. F. Smith and H. A. DuBois, Kimberly-Clark Corporation.
(4) "Steam Generation for Paper Mills", by M. H. Kuhner, Riley Stoker Corporation, Worcester, Mass.
(5) "Steam Power Plant Design and Operation", by A. Kolflat, Sargent & Lundy, Chicago, Ill.
(6) "A New Conductivity Instrument for Analyzing Kraft Liquors," by E. R. Wittemore, S. I. Aronovsky and D. F. J. Lynch, U. S. Agricultural By-Products Laboratory, Ames, Iowa.

Many reservations at the Northland and Beaumont Hotels are being made. All who plan to attend should make reservations as early as possible. They should be made through A. D. Murphy of the Green Bay, Wis. Association of Commerce.

War Affects Japanese Paper Industry

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, July 13, 1938—Current wartime conditions have begun to affect the Japanese paper industry to an increasing extent, according to reports from the office of the American Commercial Attache, Tokyo. Output is being restricted due to a shortage of pulp supplies, while imports are being held at low levels. The export trade has also been affected by prevailing conditions although the decline in shipments to foreign countries is not nearly as great as in the case of imports. Employment and wages are showing upward tendencies, according to the Bank of Japan's indexes, but the gain in wages as reported by the Department of Commerce and Industry is slight when compared with the rising costs of living.

Production of machine-made paper by the 12 members of the Japanese Paper Manufacturers' Association during the first quarter of 1938 reached a total of 229,248 short tons, a decline of almost 10 percent from the preceding quarter and almost 9 percent compared with the corresponding quarter of 1937.

Imports of paper during the first quarter of 1938 amounted to only 4,313 short tons, a decline of 73 percent from the preceding quarter, and 68 percent compared with the first quarter of 1937. The restrictions over imports put into effect on October 11, 1937, are believed to be largely responsible for this drastic decline in purchases of foreign paper.

R. S. Kellogg Back From Europe

Sailing from this country April 29th, Royal S. Kellogg, secretary-treasurer of the Newsprint Service Bureau, 342 Madison avenue, New York, returned July 4th from London. On this business trip he visited newsprint mills in England, Finland, France, Germany, Holland, Norway and Sweden. Traveling much by air and automobile he covered a total mileage of some 11,000 miles.

Business conditions throughout Europe, Mr. Kellogg said, while depressed and affected by the low level of business activity in this country, are much better than have prevailed here. Mrs. Kellogg, a talented artist, spent much time in sketching in England and met Mr. Kellogg in Paris. Mrs. Reid of Wausau, Wis., mother of Mrs. Kellogg, who accompanied them to London, remained in that city until they sailed for home.

Effect of Newsprint Situation on Politics

Reduction in Production of Canadian Newsprint Mills May Result in the Resignation of Quebec Provincial Government, States Montreal Report— The Argentine and South Africa Paper Imports Increased Last Year.

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., July 18, 1938—There has been a good deal of talk here about the possibility that the Provincial Government may resign in order to bring about a general election this fall. Discussing this question, the Montreal Gazette's Quebec correspondent says:

"Only one reason worthy of consideration has been given for dissolving the Legislature this year, and that is the newsprint situation. This industry has suffered considerably of late months, and is down to around 50 per cent of capacity due to the recession of business in the United States and to the fact that newspapers generally had stocked up due to talk of higher prices, though the latter reason is only a brief temporary factor.

Importance of Newsprint Industry

"In this province it may be safely stated that at least 20 counties are, in major measure, dependent upon the forestry industry, and many other counties are less seriously affected. Hence, continued depression in the Quebec newsprint industry would mean that fewer men would go into the forests the coming winter, and the shorter hours in the mills would continue, and the Government would lose popularity in such counties. Therefore, let there be elections before this happens, say some people not friendly to the Government.

Improvement May Come in Fall

"As against this, it is pointed out there are already signs that the recession in the United States is lessened and optimists talk of it being ended this fall. Next, it is pointed out, even if the forestry situation is bad this coming winter there is no reason to suppose this will be the case during the winter of 1939-40 and certainly not during the winter of 1940-41.

"If there are to be three bad years in this industry, which the worst pessimists do not predict, it would at least mean continuation in power until 1941 for the present Government and that is three years away. Under these circumstances, the wiser political onlookers think, even attributing to the Government the desire to 'snatch' a victory, that it would be 'bad business' to have elections this year."

Argentine and South Africa

From the Canadian Trade Commissioner's office at Buenos Aires it is stated that Argentine's total imports of paper and cardboard in 1937 amounted to 239,701 metric tons of 2,205 pounds as compared with 200,272 tons in 1936. Imports of newsprint in 1937 totalled 27,650 tons as against 38,808 tons in the preceding year. Canada's share was 9,446 tons as compared with 8,517 tons.

The bulk of the wrapping paper consumed in Argentina is produced by the domestic industry. There remains, however, a considerable demand for the heavier kraft paper such as is used for the manufacture of cement and lime bags. Imports in 1937 of wrapping paper weighing over 25 grams per square metre amounted to 7,612 tons as compared with 5,996 tons in 1936.

Canada is credited with supplying 18.4 tons of "ordinary cardboard" in February, 1938. This, however represents shipments of wallboard, which the official statistics classify under the general heading.

From the Canadian Trade Commissioner's office in Cape Town it is stated that the total quantity of newsprint, in reels, imported into South Africa in 1937 was 794,068 centals (100 pounds) valued at £345,085. Imports from Canada amounted to 490,681 (394,205 in 1936) centals as compared with 258,082 (245,416 in 1936) centals from the United Kingdom, the chief source of competition. Imports of flat newsprint amounted to 36,926 centals, Canada supplying 50 per cent of this quantity. Total imports of kraft wrapping paper were 362,053 centals, of which Sweden supplied 216,069 centals; Canada, 54,624 (3,343) centals.

Ruling on Rag Shipments

The United States Customs Bureau has advised that special regulations are now in effect on the handling of cotton rag shipments, which consist in part of paper stock entitled to free entry and in part of wiping rags subject to assessment of 3 cents per pound. If a consignment is believed to contain any dutiable rags and is entered for consumption estimated duties shall be levied on the basis of total net weight.

An importer may apply in writing within ten days after entry for permission to segregate under Section 508 of the tariff the dutiable and free rags and collectors are instructed to see there is a 100 per cent segregation in any such case. It must be done by and at the expense of the importer under the constant supervision of a customs officer.

Attention is called to court decisions holding that cotton rags with an area of 144 square inches or more are dutiable unless it can be established that they are of a particular kind used in making paper and those of smaller dimensions free as paper stock. In determining the area of rags only the usable material is to be counted, without including holes, strings, strips and shreds.

W. T. Hinckley Dies In Accident

William Tracy Hinckley, vice president of the Swenson Evaporator Company, at Harvey, Ill., was accidentally killed while driving at Bogalusa, La., on the evening of July 11. Mr. Hinckley was age 36 years. He was graduated from the University of Michigan in the class of 1926, with the degree of B.S. in chemical engineering and he was a member of the Technical Association of the Pulp and Paper Industry.

Burial was held at Detroit, Mich., July 14.

Paper Co. Makes Good Report in Poor Year

Great Lakes Paper Reports Net Earnings of $41,303 For First Half of 1938, Although Shipments Declined 32 Per Cent—Bonds of Abitibi Co. Rise in Value—Ontario Prepared to Combat Forest Fires — Other News.

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., July 18, 1938—The shipments of the Great Lakes Paper Company Limited, Fort William, Ont., of which C. H. Carlisle, Toronto, is president, in the first six months of 1938 showed a decrease of 32 per cent. This definitely affected costs and reduced profits. The company, however, earned full depreciation, its bond interest and made a net profit of $41,303. Mr. Carlisle says that the latter half of the present year should show a greater profit due to better business conditions and to savings made by the company on water shipments which reach their maximum in the summer and fall months.

During the past six months the Great Lakes Paper Company completed the building of a dam and roadways on the Black Sturgeon limits. Improvements have also been made to the plant resulting in higher efficiency and great economy. Screenings, which for some time have shown a material loss to the company, will within the next sixty days be converted showing substantial profit. The company, during the past six months, has promptly met all its obligations and also has paid deferred bond interest amounting to $163,195. Owing to the large amount required to pay off the indebtedness when the assets were taken over by the new company on June 26, 1936, and the necessity of putting the mill into efficient condition, the company needed temporary financing. The company asked the bondholders to forego their interest for a period of one year. On January 18, 1937, the bondholders granted the request on the following terms. The deferred interest was to bear five per cent interest. One half of the deferred interest was to be paid on July 2, 1938, and the final payment to be made on July 2, 1939. It was in accordance with these arrangements that the payment was made on July 2 last. Mr. Carlisle added that, during the first six months of the fiscal year ending July 1st last, the amount of tonnage shipped by the Canadian Newsprint Industry as compared with the same period a year ago showed a decrease of 617,901 tons or thirty-eight per cent. The cause of the reductions was, first, general adverse business conditions especially in Canada and the United States and second, excessive tonnage shipments made in the last half of 1937.

Abitibi Bonds Rise in Value

The bonds of the Abitibi Power and Paper Co., Limited, Toronto, have risen in value by several points during the past few days. This has caused some speculation in regard to the possibility of interest being paid on the same in the near future. It is extremely unlikely that any interest payment will be made for some time to come. The interest is in arrears now for six years and efforts have been made for over a year to reorganize the Abitibi company and place it in a position to give some return to bond and shareholders. So far these efforts have not been successful and until reorganization has been completed there is not much prospect that bondholders will get any interest. The Abitibi Company is being operated by G. T. Clarkson, Toronto, receiver and manager.

Moore Corp. Reports Improvement

While the Moore Corporation, Toronto, experienced a decline of fifteen per cent in business in the first six months of 1938, as compared with a like period a year ago, improvement has been shown during the past few weeks and June was about on a par with a year ago. The decrease in the six months was about the same in Canada as in the United States. In 1937, both volume and earnings were the highest in the history of the company.

E. E. Johnson Leaves for Europe

Edward E. Johnson, president of the Pigeon Timber Company, Fort William, Ont., left this week on a three months' trip to Europe where he will undertake an analysis of the resources and industrial methods of several countries. Mr. Johnson said that the purpose of the journey was to acquire a basic knowledge of economic conditions in Europe for certain domestic and United States interests who feel that material and data on major industries and resources should be surveyed. In so far as time will permit, Mr. Johnson said that the survey would follow the pattern used in 1928 and 29 when he prepared several volumes of reports in connection with first major merger of newsprint firms in Canada.

H. C. Draper To Visit Sweden

Harry C. Draper, K. C., Toronto, formerly assistant deputy minister of lands and forests for Ontario, and Mrs. Draper, left this week on an extended trip overseas, Mr. Draper will spend some time in Norway, Sweden and Finland. He is now solicitor for the interests of the Mead Corporation, Chillicothe, Ohio, the Huron Products Company who will undertake developments in the pulp and paper line in Ontario, and for the Detroit Sulphite Pulp and Paper Company, Detroit.

Prepared to Combat Forest Fires

Hon. Peter Heenan, Minister of Lands and Forests for Ontario, says that the province was never in better shape to combat the menace of forest fires. The personnel of the staff has been built to a fine point of efficiency. The aeroplanes of the province now number 28, and this year thirty additional watch towers were erected throughout the north.

Equipment to Hollingsworth & Whitney

Smith & Winchester, South Windham, Conn., announce the shipment of five bag machines to Hollingsworth & Whitney Paper Company, Waterville, Maine.

One was a heavy duty tuber; four were heavy duty Smith & Winchester combination bottomers to make large, multi-walled bags with satchel or valve bottoms.

Financial News of Pulp and Paper Industry

Crown Zellerbach Corp. And Subsidiaries Show Consolidated Net Profit Of $6,211,414—American Writing Paper Co. Reports A Net Loss Of $66,672.21 For First Five Months—Rayonier Shows Profit Of $3,124,703.

NEW YORK STOCK EXCHANGE

High, Low and Last for the Week Ending July 20, 1938

	High	Low	Last
Armstrong Cork Co.	46½	40¼	44⅝
Celotex Corp.	24⅜	22	24
Celotex Corp., pf.	72	70	72
Certain-Teed Products Corp.	9⅜	8⅝	9¼
Certain-Teed Products Corp., pf.	38¼	35¼	36¾
Champion Paper & Fibre Co.	29⅜	27½	29¼
Champion Paper & Fibre Co., pf.	97	97	97
Congoleum-Nairn Co.	26⅜	23⅞	26½
Container Corp. of America	17½	16⅛	17
Continental-Diamond Fibre Co.	10	8¾	9⅞
Crown-Zellerbach Co.	14⅞	12½	14¼
Crown-Zellerbach Co., pf.	82	79	82
Flintkote Co.	24⅞	20⅛	24½
Robert Gair	5⅞	5	5⅝
Robert Gair, pf.	17⅝	16	17⅜
International Paper & Power	11⅝	10	11⅜
International Paper & Power, pf.	46⅜	41⅜	45¾
Johns-Manville Corp.	95⅞	90	94
Johns-Manville Corp., pf.	128	127	128
Kimberly-Clark Corp.	30	27¼	30
MacAndrews & Forbes	31⅝	31	31⅝
Masonite Corp.	49	44	48⅝
Mead Corp.	14½	13	14⅛
Mead Corp., pf.	66	61½	66
Paraffine Companies, Inc.	49	48½	49
Paraffine Companies, Inc., pf.	92½	92½	92½
Ruberoid Co.	26⅜	23	25½
Scott Paper Co.	46	44	46
Sutherland Paper Co.	32	28	31
Union Bag & Paper Corp.	13⅞	12⅞	13½
United Paperboard Co.	7¾	6⅝	7¼
U. S. Gypsum Co.	95	89	93½
U. S. Gypsum Co., pf.	170	170	170

NEW YORK CURB EXCHANGE

High, Low and Last for the Week Ending July 20, 1938

	High	Low	Last
American Box Board Co.	12¼	11	12
Brown Co., pf.	30	29	29¾
Great Northern Paper	30	28½	29
St. Regis Paper Co.	3⅞	3½	3¾
St. Regis Paper Co., pf.	64	64	64
Taggart Corp.	6½	5⅛	5⅞

Crown Zellerbach Earns $6,211,414

The report of the Crown Zellerbach Corporation and subsidiaries for the year ended on April 30, shows a consolidated net profit of $6,211,414 after all charges including surtax on undistributed profits and after deducting the interest of the minority stockholders of Pacific Mills, Ltd., a Canadian subsidiary.

The net income is equivalent to $11.72 a share on the outstanding preferred stock, or $1.57 a share on the common stock after providing the $5 dividend on the preferred. The profit compares with one of $5,094,403 in the preceding fiscal year, equal to $9.62 a preferred share and $1.08 a common share.

Consolidated current assets on April 30 amounted to $23,317,664 and current liabilities were $8,939,334. Working capital was $14,378,331, an increase of $1,663,042 compared with the total on April 30, 1937, after adjusting the latter to a comparable basis by the transfer of marketable securities from current assets to investments and receivables other than current.

On April 30, last, a balance of $9,927,500 first-mortgage sinking fund 6 per cent gold bonds of Crown Willamette Paper Company of Delaware was outstanding and $465,000 was in the treasury. No purchases of these bonds were made during the year. The minimum sinking fund payments required by the indenture securing these bonds have been made to and including 1943, and in part for 1944.

Four quarterly dividends of $1.25 each on the preferred and three dividends of 25 cents each on the common stock were paid during the year. Total dividend payments of $4,338,219 represent an increase of $1,551,614 over total disbursements to stockholders of the Crown Zellerbach Corporation and the Crown Willamette Paper Company in the preceding year.

American Writing Reports Loss

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, July 18, 1938—A net loss of $66,672.21 is reported by the American Writing Paper Corporation, in a semi-formal statement issued today covering the first five months of 1938. Contrary to custom, the AWP designed its statement along lines easily understood by anyone, especially the closing item of the financial statement which read "Interest and cash dividends paid to bondholders and stockholders—nothing."

The opening statement was—"We billed our customers for products purchased from us $2,539,347.69." Deductions from gross sales were then explained in the same conversational style, leading up to the following: "In the disbursement column this story is told."

The unique financial statement was on the inside doublepage of a small four-page folder, on the front page of which was a picture of the machine room of the Linden division, identifying the employees shown at their posts and on the back page was a picture and a brief description of the new Bird screen installed recently.

The following explanation was given:—"The money we saved and set aside last year enabled us to replace or renew the machinery of some of our mills and to effect certain changes which allow our papermakers to manufacture better paper at less cost."

Then calling attention to the picture on the last page of the remarkable report, the explanation follows:—"—of a machine installed a few months ago which screens the fibers of the paper stock makes cleaner paper of better formation and uniformity. This machine is called the Bird screen. We hope to continue to progress and add new equipment which will further improve the quality and dollar value of Eagle A papers."

Johns-Manville Earned $214,578

The Johns-Manville Corporation reported last week for the three months ended on June 30 a consolidated net income of $214,578, equal after preferred dividend requirements to 10 cents each on the 850,000 shares of common stock outstanding. This compares with $1,789,415 in the second quarter of 1937, or $1.95 a share on the common stock. In the first six months of this year the company reported a net loss of $24,897, whereas in the first half of 1937 it

had reported a net income of $2,811,333, or $3 a share on the common stock.

The Johns-Manville Credit Corporation, a wholly owned subsidiary, whose earnings are not consolidated with those of the parent company, reported for the second quarter of the year net earnings of $63,929, compared with $36,180 in the corresponding period last year, and for the six months ended on June 30, $141,571, against $98,805 in the first half of 1937.

Lewis H. Brown, president, in a statement to stockholders accompanying the report, said the upturn in business resulting from the current spending by the government would be a mere consumer recovery and would be highly vulnerable whenever the consumption stimulus was removed again, unless an abundant flow of private capital through investment channels, in addition to consumer spending, is encouraged and obtained. He emphasized that he was discussing the economics of the present situation and not its political aspects.

Rayonier Shows Profits of $3,124,703

Rayonier, Inc., producer of dissolving pulp used in the rayon and staple fiber industry, in its first annual report for the twelve months ended on April 30, shows a net profit of $3,124,703 after depreciation, interest, Federal income and undistributed profits taxes. After annual dividend requirements on the preferred stock, the result is equal to $1.94 a share on 963,872 common shares.

Because the company was organized Nov. 2, 1937, as a consolidation of three predecessor companies, the report covers the combined operations of the predecessor companies for the six months of the fiscal year and of Rayonier, Inc., for the last six months. Comparable net earnings of the predecessor companies for the year ended April 30, 1937, were $2,243,320.

Mosinee Net Profit $42,637

[FROM OUR REGULAR CORRESPONDENT]

MOSINEE, Wis., July 18, 1938—Mosinee Paper Mills Company showed a net profit of $42,637 for the fiscal year ending May 31, according to a report issued last week by A. P. Woodson, president. This is considerable of a drop from the previous year, when the net profit was $250,650.

Mr. Woodson reported the volume of production off 25 per cent for the year, with orders holding up until last September. A month-to-month improvement began last January.

Net sales for the last year were $2,008,812, against $2,629,801 the year before.

Munising Votes Dividend

MUNISING, Mich., July 18, 1938—Directors of the Munising Paper Company have voted a 25 cent per share quarterly dividend on the first preferred $20 par value stock. It will be payable August 1 to stockholders of record July 20.

Crystal Tissue Reports $29,632

The Crystal Tissue Company reports for the six months ended June 30, net loss $29,632, and for the same 1937 period, net income $61,288, or 55 cents a common share.

WISCONSIN BACKS SALES PLAN

(Continued from page 13)

pany at a foreclosure sale, and intends to use that site for the new power plant.

Beloit Employees To Hold Election

An election will be held by the 310 employees of the Beloit Iron Works, Beloit, Wis., to determine what labor organization shall be the bargaining agency for the workers. An agreement to this effect was reached by the National Labor Relations Board at a hearing conducted at Beloit by Carl Ludwig of Milwaukee, Wis., trial examiner. The agreement stipulates that the payroll of March 25 will govern voting eligibility. The date of the election is to be fixed later.

River Pollution in Green Bay

River pollution in Green Bay, and the Fox River as it enters Green Bay will be studied by the Wisconsin State Board of Health through L. F. Warrick, state chief sanitary engineer. Funds are being sought from the state to employ a chemist to make a survey at that point to determine the cause of a stench. Several paper mills are located at Green Bay, Wis.

Sign Agreement at Holyoke

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, July 18, 1938—Signatures from all parties involved have been obtained to a working agreement between the three locals of papermakers and the paper manufacturers of the section who have for years operated under a signed agreement or an "understanding" in their relations with the organized workers.

The new agreement calls for a reduction in the hourly wage of five cents an hour on the base rate throughout the entire industry with an adjustment of differentials which in no case amounts to more than four cents an hour. The maximum cut will be nine cents an hour and will affect only a small group in the finishing departments, while the total cut will then grade down embracing larger groups as it diminishes reaching the five-cent-an-hour cut on the base rate.

The adjustments on the scale in the finishing departments are made on the basis of hourly pay as in the contract recently terminated but will be adjusted to a piece-work basis. Grievances which have developed since the first tentative arrangement was arrived at are being adjusted by negotiating committees and any slight threat of labor trouble is now effectively passed.

Adam Wilkinson, formerly labor relations counsel for the American Writing Paper Corporation, and more recently labor relations counsel for many local manufacturers, in and out of the paper trade, handled negotiations for the mills, as follows: American Writing Paper Corporation, Valley Paper Company, Parsons Paper Company, Franklin Paper Company, Chemical Paper Company (including the Crocker-McElwain Paper Company), all of Holyoke, the Carew Manufacturing Company of South Hadley Falls, and the Strathmore Paper Company of Woronoco. The Newton Paper Company, because of the nature of its business, negotiated a separate contract.

Obituary

Tom Harvey

Tom Harvey, former manager of the Gardner & Harvey Company, No. 2 Mill, predecessor of the Gardner-Richardson Company, and for years a dynamic business figure and civic personality in Middletown, Ohio, died Wednesday midnight July 13, at Union Memorial Hospital, Baltimore, Md., where he had been a patient 12 weeks. At the time of death, Mr. Harvey was general manager of the Chesapeake Paper Board Company, with which he was associated for five years.

Mr. Harvey, who was associated with the Gardner & Harvey Paper Company for 22 years, was known to the entire paper-making industry not only because of his associations with various firms, but for several inventions and developments which he perfected and put into wide practice.

One of the outstanding inventions accredited to him and in use in virtually every modern papermaking plant is the Harvey Lewelly paper thickness control.

In Middletown, where he was associated with his brother until 1932, he took an active part in expanding the business of the Gardner & Harvey Company into one of the most widely-recognized firms in the nation with a market that transports its products into many foreign fields.

Mr. Harvey's business career almost parallels his life, having caught the spirit of his father, the late Thomas Harvey, for the profession of paper making. Early in life he became associated with the elder Harvey, after having had his first training in the paper mills of Holyoke, Mass.

He was born in Theale, near Reading, England, the son of Thomas and Frances Sophia Harvey, March 9, 1868, coming to America in 1872, when the family made its home in Newburgh, N. Y. Later they removed to Hull, Quebec, Canada, where the father became superintendent of the E. B. Eddy Company. It was here that the son, Tom Harvey, learned the rudiments of the business in which he was to carve his niche.

Later associations were with the mills of Kalamazoo, Mich., Holyoke, Mass., Chicago, Bogota, N. J., West Carrollton and finally Middletown, where he joined his brother, George H. Harvey, and the late Colin Gardner in the building of a second mill for what was to become the Gardner & Harvey Paper Company.

In 1932 he sold his interests when the company purchased the Richardson interests of Lockland, to become the Gardner-Richardson Company. He then moved on to the Chesapeake Paper Board Company, where he again could pioneer in the revision and modernization of its methods. That firm is one of the leaders in the long eastern chain of paper manufacturing concerns.

It was while at Kalamazoo that Mr. Harvey met and married Miss Sarah Pincham, of London, England, who was visiting relatives in this country at the time. The family occupied an imposing place in Middletown during its residence of nearly a quarter of a century here. Mr. Harvey was an active member of the American Pulp and Paper Mill Superintendents Association. He was a past chairman of the Miami Valley Division, also chairman of the annual convention held in Dayton, Ohio in 1931. He was a prominent Scottish Rite Mason and was affiliated with all branches of the Masonic order.

He served a term as president of the Middletown Rotary Club and was recognized as a leader in the Y. M. C. A., having headed the association as its president for a number of years and participating actively in the transition of the old Brotherhood into the present institution.

An active civic and church worker, he was a member of the Methodist Episcopal Church throughout life and an ardent official of Broadway Methodist Church for years. Besides having been a member of its official board, he was superintendent of that Sunday School for seven years.

At an early age the Harvey brothers became well known as bicycle racers, Tom Harvey holding the Quebec Province championship. In his home are many trophies awarded for his excellence as a bicycle rider, one of his favorite stories centering upon his boyhood sport and his ability to hold the Canadian championship for two successive years in the face of competition with some of the most expert bicycle riders of that day.

Survivors of Mr. Harvey are the widow, Mrs. Sarah Harvey; three sons, Harold, affiliated with Penick & Ford Starch, Ltd., of New York; George E., with the Gardner-Richardson Company; Gardner, associated with the Eagle Picher Lead Company, of Cincinnati; one grandchild, Suzanne Harvey, this city, and his mother, Mrs. Frances Harvey, of Second Avenue, aged 94 years.

His funeral services were held in the First Methodist Church in Middletown on Saturday, July 16. Burial was made on the family plot in Woodside Cemetery.

Gair Adds to Office Space

The Robert Gair Company, Inc., 155 East 44th street, New York City, has completed alterations to their general offices. Additional space equivalent to about one-half of the twelth floor has been acquired to provide more space for the sales, sales promotion and engineering departments. A private stairway has been erected to connect the eleventh and twelfth floors. The reception room and elevator entrance has also been improved by the removal of a partition, giving the effect of more space to the office.

Testimonial Dinner for D. F. Wood

D. F. Wood, Traffic Manager of Binney & Smith Company for the past 21 years, retired on July 1, 1938. He is succeeded as traffic manager by C. D. Macknee, J. D. Spruill becoming assistant traffic manager and G. Erath, chief clerk. A testimonial dinner was held for Mr. Wood on Thursday, June 30 attended by the executives and other friends. After a one-month vacation Mr. Wood will remain as Traffic Consultant, being in the office one day a week.

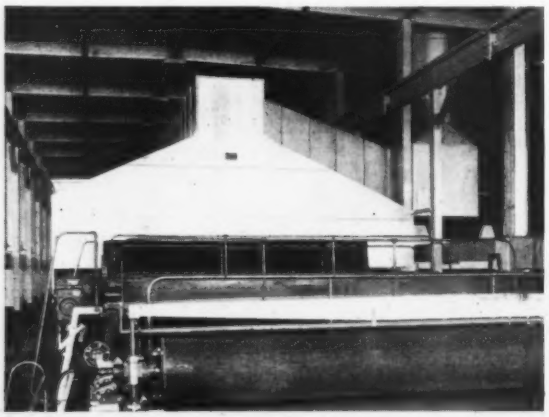
Heller & Merz Announces New Colors

With the growing demand for superior bond papers, Heller & Merz announces that their research laboratories have just released two new products—Bond Blue B and Bond Green Y. These dyes possess good fastness to light as well as reducing two-sidedness to a minimum. Samples of these dyes may be had upon request.

New Hood Design in Container Mill

The installation of a new hood design by the Perfecting Service Corporation, 57 East Jackson boulevard, Chicago, Ill., in the mill of the National Container Corporation, Jacksonville, Fla., which introduces late developments in paper machine hooding, is shown in the illustration presented herewith. This installation is designed to provide a more perfect circulation of air around the rolls and to possess the advantages of simplicity, accessibility, efficiency and flexibility.

The removable panel construction is stated to afford easy access for the removal of machine parts and dryer rolls. Duct and stack arrangement permits free



NEW DESIGN IN PAPER MACHINE HOOD

crane travel the entire length of the machine room. It is also claimed by the designer that a saving of more than 40 percent in power has been accomplished by the use of specially designed fans, which are accessible for operation and maintenance. By means of a continuous exhaust chamber and multiple fan connections, zone control of air flow to aid drying is effected.

Provisions are also made for the individual control of fans and adjustment of exhaust outlets, which makes it possible to control air distribution and air quantities to meet changing drying conditions due to change in machine speeds and in weight of product.

Government Bids Received

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 20, 1938—The Government Printing Office has received the following bids for 325 sheets of 20x25 pink gummed paper; Virginia Paper Company, $4.25; Stanford Paper Company, $5.04; Mathers-Lamm Paper Company, $4.25; R. P. Andrews Paper Company, $5.00; and Whitaker Paper Company, $5.04.

Acquires "Providence Plantations"

BOSTON, Mass., July 18, 1938—The Brooks Manufacturing Company here has purchased from the Paddock Paper Company, Providence, R. I., all rights to the watermark Providence Plantations, which has been extensively sold in Providence in the past. The Paddock Paper Company has gone out of business.

Link-Belt Unmounted Roller Bearings

The Link-Belt Company, Chicago, has placed on the market a very complete line of Link-Belt Shafer radial-thrust single-row and double-row roller bearings in the naked or unmounted form, and a new book No. 1652, 12 pages, complete with engineering data for figuring applications, has been prepared, to cover the subject. The text of the book stresses: 1. Free rolling action with unimpaired loading capacity, even in the presence of shaft deflection or misalignment, is assured. 2. No provision for misalignment need be made in the bearing housing or mounting. 3. Thrust capacity is provided by the roller and race-way shapes and by the angular position of the curved rollers between curved races. 4. Radial or thrust or any combination of radial-thrust loads will be carried equally as well and on the same full contact area under all conditions of alignment. 5. There is no possibility of rollers pinching or binding, and no need for auxiliary means of taking the thrust.

The new book gives dimensions, weights, load ratings at 500 r.p.m., and list prices, for both single-row and double-row bearings.

Engineering data, such as determination of radial load; load ratings; modifying factors; life factors; operating factors; speed factors; and formulae and examples covering all types of loading, also are included.

A copy of this new Book No. 1652 may be obtained by writing to Link-Belt Company, Chicago, Philadelphia, Indianapolis, or other office.

Reeves Pulley Co. Issues Catalogue

The Reeves Pulley Company has just issued a new 124-page catalog (No. G-384) covering the complete line of Reeves' variable speed control equipment in one compact, easy-to-use volume.

This is the first time that all three Reeves' speed control units—Variable Speed Transmission, Vari-Speed Motor Pulley and Motodrive—have been cataloged together in one book. The entire book is printed in two colors and each of the three sections is printed in a different color combination for ready identification. Mechanical binding of the 8½ x 11 pages permits the book to lie open perfectly flat.

The book is bound in a heavy-weight black cover handsomely embossed in gold. More than 200 illustrations are used. Twelve pages are devoted to illustration of installations and uses in many different industries. Twenty-three pages are devoted to engineering data on the Reeves Transmission; 11 pages to engineering data on the Vari-Speed Motor Pulley; and 19 pages to the Motodrive. All dimension drawings are notably large and easy to read.

Copies are available free from Reeves Pulley Company, Columbus, Ind., or from any of our representatives located in leading industrial centers.

Discuss Small Order Problem

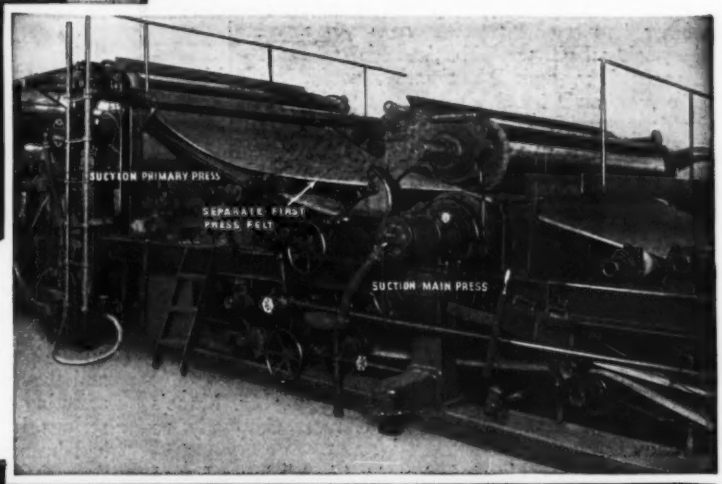
[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., July 18, 1938—Current industrial conditions, statistical methods and the small order problem were discussed at a luncheon meeting of the Cost Finding Committee of the wrapping paper merchants, Friday, at the Boston Chamber of Commerce. Chairman Floyd H. Blackman presided.

Suctionize

YOUR BOARD MACHINE WITH Beloit SUCTION

DRUM PRESS *
PRIMARY PRESS
MAIN PRESS



Note the short top felt for suction drum press nip. All plain primaries have been removed.

Wet pickup felt returns after suction primary press. Suction first press is on separate felt.

1. Removes large quantity water without disturbing formation or finish.
2. Reduces crushing and checking.
3. Improves finish. Reduces felt marks.
4. Permits use of light weight short top felt. Lower felt cost.
5. Eliminates several nips. Improves test of board.
6. Permits more bulk if desired.
7. Increases test or permits cheaper furnish and maintain same test.
8. Suction main press more efficient on separate felt.

* Suction drum press is equivalent to suction drum and suction primary press.

BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS.

THE BELOIT WAY IS THE MODERN WAY

BELOIT IRON WORKS, BELOIT, WIS.

Testimonial Dinner for G. A. Manz

G. A. Manz, president of the J. & F. B. Garrett Company, Syracuse, N. Y., has a record in the paper industry that his friends believe cannot be matched by anyone of the present generation.

On July 10, Dolph—as he is known throughout the trade—celebrated his eightieth birthday.

On August 13, 1938, Mr. Manz will have completed 65 years with the Garrett Company which, it is believed, is an outstanding record in the paper trade.

Fifteen years ago, on August 13, 1923, the J. & F. B. Garrett Company gave Mr. Manz a testimonial dinner on the fiftieth anniversary of his association with the company of which he has been president since 1909.

G. A. MANZ

I. R. Alvord relates the beginning of Mr. Manz's connection with J. & F. B. Garrett Company as follows:

"On the morning of August 13, 1873, as I was having my freight bills O.K.'d by F. B. Garrett, there came in the door of the store a boy about 15 years of age. He stood behind me with hat in hand. When F. B. Garrett handed me my freight bills the young man stepped up to Mr. Garrett and said, 'I saw the card in the window "Boy Wanted." I would like the position. Mr. Garrett said to him, "You are too small to wheel a wheelbarrow and deliver bundles of paper." But this young man replied, "Try me a week and if I do not fill the bill, it will cost you nothing for my week's work."

"Tonight we are celebrating the fiftieth anniversary of that occasion in honoring our president and coworker, Mr. G. A. Manz."

Discuss Credit Clearance Bureau

[FROM OUR REGULAR CORRESPONDENT]

HARTFORD, Conn., July 18, 1938—Current conditions in the book paper market and a credit clearance bureau were discussed at a luncheon meeting of Connecticut members of the New England Paper Merchants Association, held Thursday at the Hartford City Club. John C. Hurd, executive secretary of the New England Paper Merchants Association, was present.

Hold Mid-West Regional Conference

One of the Mid-West Regional Conferences regularly conducted under the auspices of the Wrapping Paper Division of The National Paper Trade Association was held at the Stevens Hotel, Chicago, Wednesday, June 29. Attendance representing the various adjacent Local Associations was as follows:

Vice-president F. T. Jamison, Pittsburgh; E. P. Magel, Indianapolis; D. Z. Hegamaster, Toledo; John L. Richey, Cincinnati; C. E. Roach, Springfield, Ill.; F. A. Weber, Peoria, Ill.; J. C. Meyers, Des Moines; R. R. Epler, Cedar Rapids; W. K. Bunting, Jackson, Mich.; C. A. Bonsor, Kalamazoo, Mich.; E. E. Schwarz, Detroit; Harry Newton, Milwaukee; J. M. Williams, Milwaukee; H. A. Hartinger, St. Paul; and A. R. Jackson, N.P.T.A.

The market conditions in major wrapping paper lines were discussed at length and there was a helpful interchange of views and experience with the usual survey of varying quotations currently received from manufacturers and converters reported without indicating their source. Some attention was also given to the selling policies and practices on the part of some manufacturers that seemed detrimental to the trade. The certified products program of the Gummed Industries Association and the guaranteed label for Wrapping Tissues, sponsored by the Tissue Manufacturers Association were unanimously approved.

The idea of a Fair Trade Practice Conference for the paper trade concerning which preliminary inquiries have recently been made by the national office was considered from various angles and Secretary John L. Richey reported on some experiments being made by a manufacturer of paper plates in the State of Illinois with a contract under the Fair Trade Act of Illinois and the Federal Act.

There was an exchange of views as to the effects on the paper trade of the new Wage and Hour Law and the results of recent conditions in the trade as affecting the wages of employees. All agreed that a serious increase in the cost of business operations had been brought about by rising taxes and it was the unanimous opinion that merchants were facing the necessity of obtaining higher gross margins on their sales.

It was decided the next meeting should be held in Chicago on Wednesday, August 9, to synchronize with a meeting of the National Paper Trade Association Committee in charge of the Exhibit to be held at the Fall Convention at the Stevens Hotel, Chicago, September 19-21.

Salesmen's Outings

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., July 18, 1938—Set for the final three outings of the summer months, the midwest division of the Salesmen's Association of the Paper Industry, plans the third in the series on Friday, July 15, at the Bob-O-Link Golf Club and has announced Friday, August 12, for the semi-final event with the Park Ridge Country Club as the site and the wind-up event at the Olympia Fields Country Club on dates corresponding with the Fall meeting of the National Paper Trade Association. Graham Olson is the Chairman in charge of the golf programs which always include lunch, golf, dinner and prizes in the evening—and singing under the leadership of Jim Coy.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Financing and Operation of Pulp and Paper Mills

General Construction News

Peshtigo, Wis.—The Badger Paper Mills, Inc., manufacturer of bond, tissue and other paper stocks, has approved plans for new addition to mill, to be one-story, 50 x 160 feet, designed primarily for storage and distributing service. General contract has been awarded to Albert Salen, Menominee, Mich., and erection will be placed under way at once. No estimate of cost announced.

Syracuse, N. Y.—The Syracuse Container Corporation, 911 Hiawatha boulevard East, manufacturer of corrugated and fiber boxes and containers, has plans maturing for new addition to plant, to be one-story, estimated to cost close to $45,000, with equipment. It will be used in part for storage and distributing service. Work is scheduled to begin at early date. Company is a subsidiary of the Robert Gair Company, 155 East Forty-fourth street, New York, N. Y. A. Goldsmith is company architect in charge.

Houston, Tex.—The Bemis Brothers Bag Company, 601 South Fourth street, St. Louis, Mo., manufacturer of paper bags and containers, has closed bids on general erection contract for new two-story and basement addition to branch plant at 2002 Lyons avenue, Houston, recently referred to in these columns, and will place award at early date. New unit will be 80 x 92 feet, and is estimated to cost approximately $50,000, including equipment.

Tacoma, Wash.—The J. E. Berkheimer Manufacturing Company, 2928 South M street, manufacturer of prepared roofing products, plans early rebuilding of portion of plant, recently destroyed by fire. Loss estimated at close to $100,000, including equipment. Reconstruction is expected to cost approximately a like sum.

Pearisburg, Va.—The Celanese Corporation of America, Inc., 180 Madison avenue, New York, N. Y., manufacturer of cellulose rayon products, has secured an extension of time from the Giles County Chamber of Commerce, Narrows, Va., for proceeding with construction of its proposed new mill on site between Narrows and Pearisburg, comprising tract of about 1200 acres of land, conveyed to the company and its subsidiary, the American Cellulose and Chemical Manufacturing Company, Ltd., by the Chamber of Commerce a number of months ago. It is stipulated that in accordance with agreement, work shall be under way on the plant not later than March 1, 1939. The tract of land noted was purchased by the Commerce organization in cooperation with the Bluefield and Princeton, Va., Chambers of Commerce at a cost of $55,000, to insure the location of the mill at that place. The company has plans under way for the plant, which will comprise several large one- and multi-story structures, with power house, pumping station and other mechanical departments. It will be equipped to give employment to about 1500 persons. The project, as arranged with the Giles County Chamber of Commerce, will represent an initial investment of about $4,000,000, with further units at later date to cost at least a like amount. The Celanese company recently authorized a bond issue of $20,000,000, and part of the proceeds of this sale will be used for the new mill.

Halltown, W. Va.—Fire recently damaged a portion of one of the shops at the mill of the Halltown Paper Board Company, with loss reported at about $10,000. It is proposed to rebuild the structure at early date.

Deferiet, N. Y.—The St. Regis Paper Company, 230 Park avenue, New York, N. Y., has begun erection of new one-story addition to local mill, recently referred to in these columns, and will push construction to early completion. New unit is reported to cost approximately $50,000, with equipment. The H. K. Ferguson Company, Hanna Building, Cleveland, Ohio, is general contractor.

Hartford, Conn.—The Android Corporation, recently organized with capital of $50,000, plans operation of a local plant for the manufacture of fiber and fiber board products. New company is headed by Frank B. Clark, 2210 Main street, Glastonbury, Conn., and Leonard G. Burke, 22 Adelaide street, Hartford, Conn.

Los Angeles, Cal.—The Pathe Film Corporation, 30 Rockefeller plaza, New York, N. Y., is arranging for early purchase of land at Hollywood, Los Angeles, for the manufacture of motion picture films. It will comprise a group of one- and multi-story buildings, completely equipped to process both color films, and black and white films. Plans are being prepared and work is scheduled to begin soon. New plant is estimated to cost close to $500,000, with equipment.

Chattanooga, Tenn.—The O. B. Andrews Company, manufacturer of paper board specialties, news board, corrugated liners, etc., has work nearing completion on new addition to mill, previously referred to in these columns, and structure will soon be ready for service. It is one-story, 200 x 280 feet, and will represent an investment of close to $100,000, including equipment. Erection contract has been carried out by the John Parks Company, Chattanooga. The

R. H. Hunt Company, Chattanooga Bank Building, Chattanooga, is architect.

Portland, Ore.—The Crown Zellerbach Corporation, 343 Sansome street, San Francisco, Cal., manufacturer of general paper products, has plans maturing for new branch storage and distributing plant at Fifth and Davis streets, Portland, and is said to be arranging early call for bids on general erection contract. It will be two-story and basement type, estimated to cost in excess of $65,000, with equipment. W. D. McWaters is manager for company at Portland.

Corner Brook, Newfoundland—Officials of Bowater's Paper Mills, Ltd., 121 Queen Victoria street, London, England, operating newsprint mills, have organized a new subsidiary interest under name of Bowater-Lloyd Newfoundland, Ltd., with nominal capital of $2,500,000, to take over and operate the sulphite pulp and paper mill of the International Power and Paper Company at Corner Brook, recently acquired by parent company, as previously noted in these columns. The change will be effective at once. Charter of new company provides for the production of pulp, newsprint, general paper products and cellulose. Plans are reported under way for modernization and improvements in the Corner Brook mill, with installation of additional digesters and other equipment, as well as increased storage and distribution facilities. Work is estimated to cost close to $1,000,000. A large part of output of the plant will be for destination in England. Eric V. Bowater, chairman of the board of directors of parent company, will head the new subsidiary organization.

Beechville, Ont.—The A. W. Smith Company, manufacturer of fly paper and similar paper stocks, plans early rebuilding of portion of mill recently destroyed by fire, caused by lightning, with the loss reported close to $30,000, including equipment.

Valleyfield, Quebec—The mill of the Valleyfield Coated Paper Mills, Ltd., recently destroyed by fire with loss over $175,000, as noted in these columns, was fully covered by insurance with a number of companies, and adjustment is now being made preparatory to early reconstruction of the plant, which specializes in the manufacture of glazed and metallic coated paper stocks. The rebuilding and installation of new machinery will cost approximately the amount of the fire loss.

New Paper Mill for Chile

The American Consulate at Valpariso, Chile, states that "A new company to be known as the Compania Chilena de Celulosa y Papel is in process of formation. The principal interest behind the new organization is the Sociedad Imprenta y Litografia "Universo", a successful enterprise long established in Valpariso which edits and publishes several magazines and engages in the general business of printing and lithography. The company now in formation will have its head office in Santiago and proposes to build a paper and pulp factory near Valdivia on the banks of the Rio Calle Calle known also as the Rio San Pedro. The project contemplates a paper factory and a cellulose mill. The paper factory would have an annual capacity of 3000 to 4000 tons, all of which can be consumed by the Sociedad Imprenta y Litografia "Universo". The promoters, however, have their greatest hopes in the manufacture of cellulose for export. They believe that their costs of production will be so low that they can readily compete in the world markets. The capital of the company will be Pesos 12,880,000 ($515,200) divided into 644,000 shares of a par value of 20 pesos each.

"Some negotiations for the acquisition of second-hand machinery have already been carried on with a firm in the United States, but the promoters now believe that only new machinery will serve their needs. At present there is the thought of purchasing the machinery from a factory in Austria and within two or three months some of the organizers are making a trip to Europe for the purpose of purchasing the machinery for the new plant. It is expected that the factory will be in operation within about 18 months.

"The organizers state that they have not committed themselves to the purchase of machinery from any particular source and if American manufacturers of paper and pulp machinery are interested they should communicate with Senor Alberto Helfmann, Managing Director, Sociedad Imprenta y Litografia "Universo", Valpariso, Chile. It should be noted that owing to compensation agreements in force between Chile and Germany, exporters in the latter country will have a price advantage over American manufacturers which at current exchange levels amounts to about 20 per cent.

Green's Mechanical Draft Fans

The Green Fuel Economizer Company's Beacon, N. Y., has just issued a new 36-page Bulletin entitled "Green's Mechanized Draft Fans." The bulletin deals only with types of fans generally used for forced and induced draft principally in steam power plants. These include backwardly and forwardly curved blade fans, straight blade fans and multi-blade fans. Characteristics for each type of blade construction are explained in detail and illustrated by characteristic curves. On the subject of volume control, which is in the forefront today when mechanical craft fans are considered, the three common systems of control are explained and illustrated. These include control of volume by dampers, inlet vanes or variable fan speeds with variable speed driving units or with constant speed motor drive through variable speed hydraulic couplings. Details of construction are described and illustrated, and throughout the book are illustrations of a wide variety of fan arrangements. Balancing and testing facilities are also shown. A convenient inquiry and information sheet is inserted. A copy of this bulletin may be had by applying to the Green Fuel Economizer Company, Beacon, N. Y.

Japan Produces Less Wood Pulp

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 20, 1938—Production of wood pulp by members of the Japan Paper Manufacturers' Association dropped off 2.1 percent during the first 3 months of this year compared with the corresponding period in 1937.

The output during the first quarter of the current year was the smallest since the corresponding quarter of 1936, a reaction apparently resulting from the sharp increase in production during 1937.

Wood pulp imports into Japan during the first quarter of 1938 included 20,347 short tons of pulp suitable for paper making.

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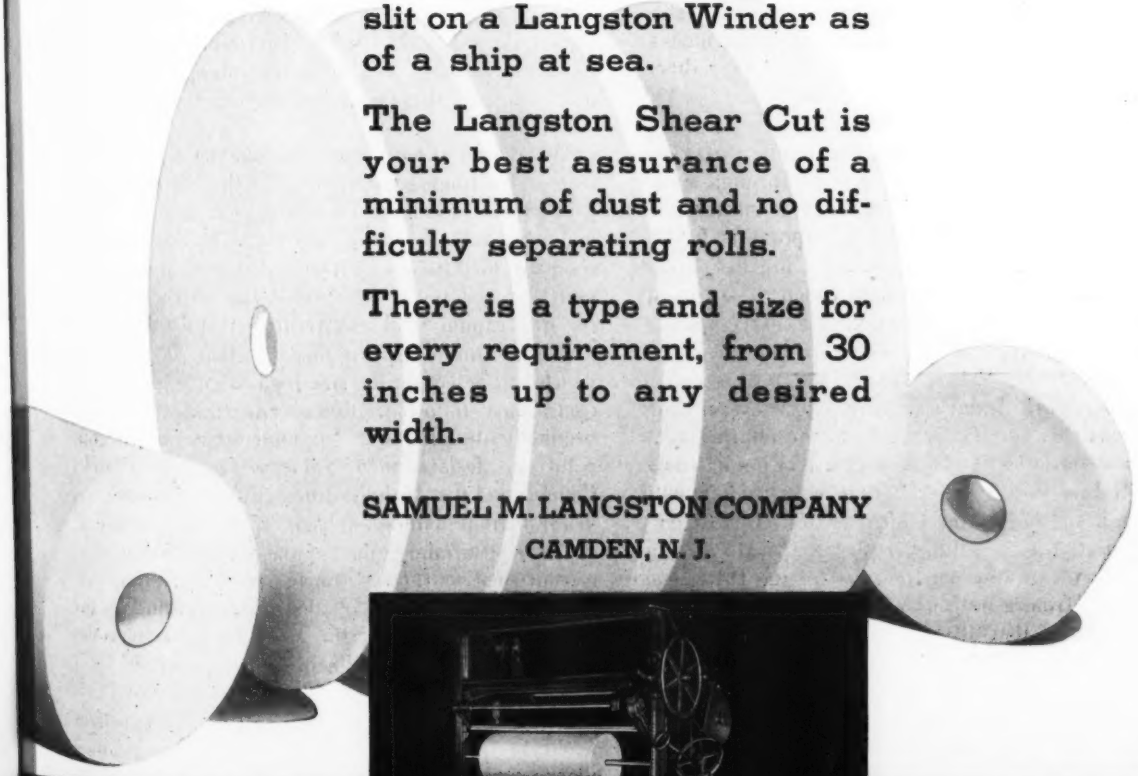

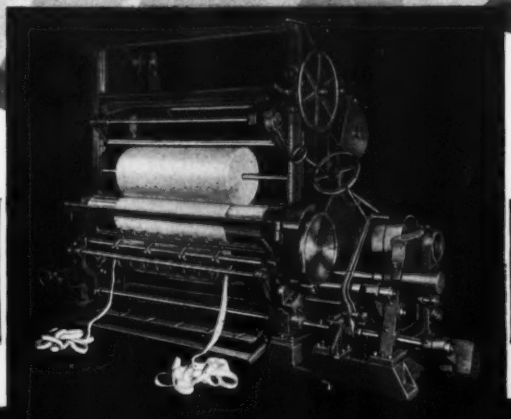

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COMING EVENTS IN THE PAPER INDUSTRY

TECHNICAL ASSOCIATION OF THE PULP AND PAPER INDUSTRY. Fall meeting, Northland Hotel, Green Bay, Wis., September 8-10.

NATIONAL PAPER TRADE ASSOCIATION. Fall convention, Stevens Hotel, Chicago, Ill., September 19-21.

STOCK REVALUATION

In the new capital stock tax law enacted in 1938, a corporation is permitted to make a new declaration of value in the tax return due to be filed at the close of July, 1938, and every third year thereafter. The present law, like the first capital tax law which was a part of the National Industry Recovery Act of 1933, provides that a "declaration of value cannot be amended." As there is no formula stated in the new law for determining the amount at which capital stock shall be declared, a corporation following the natural course of business practice would report such an amount as would lessen its tax liability under the excess profits tax.

In commenting on the effect of the new tax law Godfrey N. Nelson, lawyer and tax expert of The New York Times Company, cities several court decisions that specifically apply to the interpretation of the declaration of valuation clause in the new law. Mr. Nelson said in part: "There was pending until a month ago before the United States Circuit Court of Appeals for the Sixth Circuit, an appeal taken by the Collector of Internal Revenue for the District of Kentucky from a decision of the United States District Court of that district, rendered over two years ago, which appeared to threaten the constitutionality of the present form of capital stock tax (Selden R. Glenn, Collector, vs. the Oertel Company).

"The real question at issue was whether the reporting corporation had the right to file an amended declaration of value within an extended time granted to all corporations in which to file returns. The District Court held in favor of the taxpayer (February 10, 1936), commented that 'a statute which either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to its application violates the Fifth Amendment' of the Constitution.

"Affirming the judgment of the lower court on June 8, 1938, the Circuit Court of Appeals observed that if an honest error could not be corrected within the extended time granted by the Commissioner of Internal Revenue, such a construction of the law would destroy the 'primary object' of providing the excess profits tax, which was to induce corporations to declare a fair or reasonable value upon their stock: that 'surely no such harsh and far-reaching results were intended. If they were, serious constitutional questions arise.'"

In describing how the case arose under the first capital tax law in the N.I.R.A. Act of 1933, Mr. Nelson pointed out that the return of the Oertel Company was due July 31, 1933, but two general extensions in time were granted, first to August 31 and the second to September 29, 1933. "The Oertel Company," Mr. Nelson goes on to say, "filed its first return on July 13, 1933, declaring the value of its capital stock at the 'book value' of $78,104.84. On September 1, 1933, 'to correct an oversight and a mistake in the original', the company filed with the collector an amended return showing the value of its capital stock at $828,104.84, 'determined by capitalization of earnings and including intangibles not on the books', at the same time paying the additional tax.

"Thereafter the collecter rejected the amended return and refunded the amount of the additional tax paid 'on the ground that no correction was permitted under the law after original filing'. In due time the company filed an excess profits tax return and paid under protest the excess profits tax on the basis of the first capital stock tax return. Within the statutory time the company filed a claim for refund which was rejected: the suit for recovery in the District Court followed. Recognizing that the 'value' originally declared was 'so understated as to constitute no declaration of value in fact', the District Court stated that if the statute authorized an arbitrary determination without a basis of fact, it would be void for uncertainty; that 'if the act here in question is construed to raise a conclusive presumption that the tax is to be levied on the declared value of the taxpayer, regardless of the actual value, it is violative of the Fifth Amendment'."

In the opinion of Mr. Nelson, "Of particular importance to this case is the fact that the appellant (collector), following the practice in Kentucky, filed a general demurrer to the taxpayer's petition, declining to plead further. Thus the District Court was bound to accept as true the company's statement that by reason of a mistake the originally declared value

was grossly incorrect and the judgment followed upon this claim."

In reference to the 1938 law and the procedure to be followed by a corporation in making its return Mr. Nelson said: "Since only the net annual income in excess of 10 per cent of the declared value, or adjusted declared value, is subject to the excess profits tax, it follows that the amount declared as the 'value' of the capital stock should not be less than ten times the corporation's annual net income of the three-year period. This involves prognostication rather than any set formula, except that the foretelling should be based on indications. This resolves itself in respect to most corporations in plain guesswork. But one might better err on the side of a liberal declaration of capital stock value than to become subject to the repercussive excess profits tax."

Newsprint Production Decreases

Production of newsprint in Canada during June 1938 amounted to 201,694 tons and shipments to 208,476 tons according to the News Print Service Bureau. Production in the United States was 65,382 tons and shipments 66,204 tons, making a total United States and Canadian news print production of 267,076 tons and shipments of 274,680 tons. During June, 20,189 tons of news print were made in Newfoundland, so that the total North American production for the month amounted to 287,265 tons. Total production in June 1937 was 420,346 tons.

The Canadian mills produced 527,889 tons less in the first six months of 1938 than in the first six months of 1937, which was a decrease of twenty-nine and five tenths percent. The output in the United States was 76,082 tons or sixteen and two tenth percent less than in the first six months of 1937, in Newfoundland 46,265 tons or twenty-six percent less, making a total decrease of 650,236 tons, or twenty-six and seven tenths percent.

Stocks of news print paper at the end of June were reported at 182,226 tons for Canadian mills and 28,997 tons for United States mills, making a combined total of 211,223 tons compared with 218,827 tons on May 31, 1938.

Kimberly-Clark Installs Pressure Boiler

[FROM OUR REGULAR CORRESPONDENT]

NEENAH, Wis., July 18, 1938—Installation has been completed by the Kimberly-Clark Corporation of a 900-pound pressure boiler at its mill at Kimberly, Wis. The entire system, including the feeding of pulverized coal and removal of ashes is entirely automatic, and requires only one man for its operation. The boiler is 62 feet long, 40 feet wide, and 60 feet high, with a combustion chamber 32 feet long, 16 feet wide and 20 feet high. Practically the entire construction is of steel instead of the usual brick, except for insulation purposes. The floors and walls are watercooled. The boiler has a heating surface of 14,400 square feet and generates 170,000 pounds of steam per hour. The equipment not only is the last word in power efficiency, but embraces automatic safety features to eliminate the danger of explosions.

Production Ratio Report

These statistics are based upon paper production reports to the American Paper and Pulp Association.

COMPARATIVE MONTHLY SUMMARIES

Months	1938(c)	1937(c)	1936	1935	1934
January	63.9%	90.3%	76.1%	65.8%	.....
February	68.7%	90.1%	77.9%	70.0%	.....
March	69.6%	90.3%	76.0%	70.5%	.....
April	68.3%	92.1%	82.3%	70.0%	.....
May	69.0%	90.6%	81.6%	69.4%	.....
June	65.7%	87.3%	80.7%	72.3%	.....
July	.....	81.8%	77.3%	64.9%	.....
August	.....	82.9%	81.5%	70.9%	.....
September	.....	78.6%	80.5%	71.9%	58.2%
October	.....	73.5%	87.6%	75.6%	64.7%
November	.....	61.9%	88.0%	75.3%	61.7%
December	.....	54.5%	85.9%	71.2%	59.6%
Year Average	.....	80.6%	81.3%	70.5%	.....
First 27 weeks	67.3%	89.2%	78.6%	68.8%	.....

COMPARATIVE WEEKLY SUMMARIES

CURRENT WEEKS, 1938		CORRESPONDING WEEKS, 1937	
*June 4	62.2%	June 5	85.3%
*June 11	64.5%	June 12	88.2%
*June 18	66.1%	June 19	89.2%
*June 25	67.1%	June 26	88.6%
*July 2	68.6%	July 3	85.2%
*July 9	57.0%	July 10	69.8%

The following statistics show the number of mills reporting by ratio groups:

	Number of Mills Reporting, Current Weeks					
Ratio Limits	June 4, 1938	June 11, 1938	June 18, 1938	June 25, 1938	July 2, 1938	July 9, 1938
0% to 50%	131	111	109	98	99	85
51% to 100%	172	193	193	199	179	119
Total Mills Reporting	303	304	302	297	278	204

* Subject to revision until all reports are received.
(c) Basic capacity data have been adjusted to correspond with ratings reported by individual companies.

PAPERBOARD OPERATING RATIOS

According to reports from the National Paperboard Association, per cents of operation, based on "Inch-Hours", were as follows:

Mos.	1938 (e)	1937 (e)	1936	1935	Mos.	1938 (e)	1937 (e)	1936	1935
Jan.	55%	80%	61%	61%	July	....	67%	69%	59%
Feb.	61%	86%	67%	67%	Aug.	....	74%	75%	65%
Mar.	60%	87%	68%	67%	Sept.	....	70%	76%	69%
Apr.	57%	89%	70%	61%	Oct.	....	66%	82%	76%
May	58%	86%	68%	61%	Nov.	....	56%	79%	70%
June	....	75%	68%	65%	Dec.	....	46%	74%	60%

Week end. June 4, 1938—48%
Week end. June 11, 1938—58%
Week end. June 18, 1938—53%
Week end. June 25, 1938—59%
Week end. July 2, 1938—62%
Week end. July 9, 1938—37%

(e) Basic figures revised to include new members of the National Paperboard Assn.

Chicago Business Improved

CHICAGO, Ill., July 18, 1938—There is a decided improvement in at least the mental attitude of the Chicago paper industry. There are also specific comments to the effect that demand in virtually all lines has shown some increase and that business is "definitely better". An improvement in the paper board situation was given widespread publicity locally during the week. Marketwise, the only noted developments during the week covered an adjustment in manifolds and a similar movement in papetry papers in line with the general correction of a short time ago. Kraft papers showed a more healthy position during the week while groundwoods and newsprints also commented most favorably on the general outlook though a slight freshening in demand was the only basic factor in evidence to merit this optimism.

Waste papers were markedly better with the undertone more strong and surpluses much lower. The better quality waste papers maintained prices and the Chicago market indicated $5 on corrugated and around $3 on mixed papers during the week.

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Section of the Technical Association of the Pulp and Paper Industry

Edited by Ronald G. Macdonald, Secretary

The Influence of Nitric Acid on Wood

By J. Seiberlich[1]

By treating wood with nitric acid at higher temperature with or without oxidation catalysts the cellulose and the lignin were oxidized with formation of carbon dioxide, oxalic acid, and other organic acids. The yield of these oxidation products depends on the experimental conditions.

G. Armbruster *(1)* and afterwards J. Seiberlich *(1a)* have investigated this process to prove its economical feasibility and have tried to prepare the products described on a larger scale.

The oxidizing decomposition of cellulose gives no uniform products but a mixture of various substances, which are called by the collective name oxycellulose *(2)* is obtained. Using acid oxidation agents a hydrolysis will accompany the oxidation process and the end product resulting is glucose.

The conversion of cellulose into sugars was described 1819 by Bracannot *(3)*. He was not successful in preparing the pure sugar *(dextrose)* from the impure sugar solution, obtained by treating of sawdust with acids.

Later Willstaetter and Zechmeister *(4)* and also Ost and Wilkening *(5)* proposed more useful methods. H. Surringat and B. Tollens *(6)* and Classen *(7)* and also C. Eckstroem *(8)* could isolate the sugars produced by acid treatment of wood. Guichard *(9)* treated cellulose with 10 per cent boiling nitric acid and obtained a yellowish colored solution. This solution rotates the plane of the polarized light.

The glucose, the first product obtained by acid hydrolysis of cellulose by further influence of oxidizing agents is converted into glucuronic acid according to Tollens and Lefevre *(10)* and afterwards Faber *(11)* obtained furfurol, saccharic acid, tartaric acid, oxalic acid and carbon dioxide from glucose.

While Heuser and Lindbom *(12)* and Haegglund (13) could not obtain oxalic acid from lignin by oxydizing with nitric acid, Heuser, Roesch and Gunkel *(14)* later isolated oxalic acid by oxidizing pure lignin with nitric acid. The pure lignin was prepared according to the method of Willstaetter and Zechmeister *(15)* by the action of high concentrated hydrochloric acid on sawdust. On oxidation of pure lignin besides oxalic acid and carbon dioxide, there was formed formic acid, acetic acid, lactic acid, protocatechuic acid and pyrocatechol according to the investigations of Hoppe-Seiler *(16)*, H. Melander *(17)* Hoenig and Fuchs *(18)* Holmberg and Winzel *(19)* and E. Heuser *(20)*.

The fact that Heuser and Haegglund, as mentioned above, could not obtain oxalic acid from lignin oxidized with nitric acid may have been due to the experimental conditions used producing too drastic oxidation, so that the first product formed was converted into carbonic acid by further influence of the nitric acid. This circumstance was not recognized by Heuser and Haegglund. Heuser *(21)* obtained smaller amounts of oxalic acid when using catalysts than when these were not used. He has not recognized that using 30 per cent ferrous sulphate or mercurious sulphate, calculated on the amount of lignin used, at an oxidizing temperature of 95-100 deg. C, doubtless the drastic oxidation action has produced lower oxidation products than oxalic acid. After he diminished the amount of catalysts used, he obtained a larger amount of oxalic acid, yet always a smaller amount than without catalysts, since he did not reduce the other experimental conditions such as temperature and acid concentration.

Cross and Bevan *(22)* oxidized pure cellulose (cotton) with nitric acid (Sp. gr. 1. 1-1.3) in a boiling water bath for two and a half hours and they have obtained oxalic acid as well as oxycellulose. Faber and Tollens *(23)*, using the same experimental conditions, have obtained a calcium salt of the formula $C_4H_4O_4$ Ca $2H_2O$, a magnesium salt of the formula $C_4H_4O_6Mg$ H_2O and a silver salt of the formula $C_5H_6O_7Ag_2$, and besides these compounds saccharic acid, and acids with four and five carbon atoms.

Wilson *(24)* has used catalysts for oxidizing cellulose. Lead alone has a feeble effect, but in conjunction with manganese increases the reaction. E. C. Sherard and W. G. Ganger *(25)* have increased the yield of oxalic acid by addition of metallic salts, especially those of the heavy metal group.

Wood also can be oxidized by fusing with ferrous nitrate or magnesium nitrate *(26)*. At temperatures of 150-170 deg. C the yields obtained may be higher, under special circumstances, than the yield obtained by using free nitric acid at lower temperature. The organic acids formed were combined and obtained as iron or magnesium salts and by this method they were better protected against further oxidation than in the free state. The decomposition of sugars by nitric acid to tartaric acid and oxalic acid was first shown by J. Liebig *(27)* using lactose. Kiliani *(28)* has obtained saccharic acid and glucuronic acid from hexoses with nitric acid at room temperature. Sohst and Tollens *(29)* have investigated the oxidizing decomposition of starch with nitric acid and they obtained saccharic acid.

[1] Member TAPPI, 49 Longwood Ave., Brookline, Mass.

The sugars obtained from cellulose are not homogeneous compounds and the intermediate products are also different until the common end product oxalic acid *(30)* is reached. According to Lachmann's *(31)* investigations, the action of highly concentrated nitric acid on cellulose may cause the formation of nitro products, especially nitrotartaric acid. He has shown also the formation of tartronic acid which was further oxidized to oxalic acid.

(1) G. Armbruster, dissertation, Karlsruhe, 1925.
(1a) J. Seiberlich, dissertation, Karlsruhe, 1928.
(2) E. Heuser, *Cellulosechemie* 2 (1921) 78. C. F. Cross and E. I. Bevan *Ch. N.* 46, 240. C. F. Cross and E. I. Bevan *J. Chem. Soc.* 43, 22.
(3) Lassar-Cohn, *C.* II. 778 (1918).
(5) *B.* 46, 2995 (1913. *Chem. Ztg.* 35, 461 (1910).
(5) *B.* 46, 2995 (1913). *Chem. Ztg.* 35, 461 (1910).
(6) *Z. f. agnew. Chem.* 712 (1896).
(7) Deutsch Patent 193, 112 (1906).
(8) Deutsch Patent 116, 542 (1900).
(9) *Bull. Par. I.* 554, (see also Pringheim, sugar chemestry 1925).
(10) *B.* 40, 4519 (1907).
(11) *B.* 32, 2594 (1899).
(12) Supl. Vol. Muspratts chem. I. H. V. 215.
(13) *Arciv f. kemi,* 7 ,15 (1918).
(14) *Cellulosechemie* 2, 18 (1921).
(15) *B.* 46, 4210 (1915).
(16) *B.* 4, 15 (1871) *z. f. pys. chem.* 13, 84 (1889).
(17) Tekn. Tiedkr. affd. foer kemi, 10, 11 (1918).
(18) *Wiener Mon H. f. Chem.* 40, 341 (1919); 41, 215 (1920); *B.* 54, 484 (1922); *Zeit. Ang. Chem.* 35, 579 (1922).
(19) *B.* 54, 2417 (1922).
(20) *Cellulosechemie,* 49 (1923).
(21) *Cellulosechemie* 4, 49 (1923).
(22) *Celluose,* 215 (1918). *Proceedings* 96, 61.
(23) *B.* 32, 2594 (1899).
(24) *J. Soc. Chem. Ind.* 39, 177 (1920).
(25) *Ind. Eng. Chem.* 15, 63 (1923).
(26) Deutsch Patent 373, 129 (1920), Deutsch Patent 393, 551 (1921).
(27) *A.* 113, 1.
(28) *B.* 54 (1921) 456; 55 (1922) 2817; 56 (1923) 2022.
(29) *A.* 245, (1888) 1.
(30) Carlet, *C. r.* 53, 344; Hornemann, *J. Phys. Chem.* 89, 283. A. Kiliani, *A.* 205, 175. E. Fischer, *B.* 27394; 29, 1382. Behrend and Greiner, *A.* 429, 152.
(31) *J. Am. Chem. Soc.* 43, 128 (1921).

Review Of The Paper Industry Literature

Abstracts Compiled By the Abstracts and Bibliography Committee of the Technical Association of the Pulp and Paper Industry, A. Papineau-Couture, John F. Ohlson and Clarence J. West, Chairman of the Committee.

Copies of United States Patents can be obtained from the United States Patent Office, Washington, D. C. for 10 cents each. Send currency, not stamps.

Paper Specialties

Prevention and Removal of Foam in the Manufacture of Paper. Richard Fromm, assignor to Lehmann & Voss & Co. U. S. pat. 2,097,121 (Oct. 26, 1937).—Foam is prevented or removed by adding to the stock an oil-free solution of phosphatides (e.g., lecithin). (Cl. 92-21).—A.P.-C.

Process of Saturating Fibrous Conduits. George Emberg, assignor to The Barrett Co. U. S. pat. 2,096,888 (Oct. 26, 1937).—The conduits are dried and immersed in a body of the saturant and the latter is subjected to a vacuum of 17 to 29 in. of mercury to completely remove any air or moisture remaining in the voids of the conduits. (Cl. 91-70).—A.P.-C.

Process of Treating Paper Articles. Herman Carew, assignor to Dixie-Vortex Co. U. S. pat. 2,098,533 (Nov. 9, 1937).—Paper receptacles are treated at their point of manufacture with paraffin at high temperature; and subsequently a coating of low-temperature paraffin is applied at the point and time that the containers are to be filled. (Cl. 91-70).—A.P.-C.

Method and Apparatus for Molding Articles of Paper Pulp. Harvey V. Mitchell. U. S. pat. 2,098,008 (Nov. 2, 1937).—Pulp is mixed with air and the mixture is fed into a hollow perforated mold through a nozzle that is both rotated axially and reciprocated. (Cl. 92-58).—A.P.-C.

Treating Cellulosic Material for the Production of Plastics. Max Henkels. U. S. pat. 2,096,743 (Oct. 26, 1937).—Lignocellulosic material is heated with a material (suitably metal salts such as a chloride, sulphite, etc.), to considerably increase the copper number. The treated material is ground in a ball mill in presence of water till it passes a 100-mesh sieve, filtered, dried, mixed with aldehydes or ketones (suitably furfural) and fillers (such as various organic or mineral fibers) and dry ground. The mixture is molded, pressed under a 2,000 to 10,000 lb. per sq. in. and baked under pressure at about 175 deg. C. (Cl. 18-47.5).—A.P.-C.

Molding Wet Fibrous Pulp Into Articles of Irregular Contour. Geo. W. Swift, Jr., assignor to Geo. W. Swift, Jr., Inc. U. S. pat. 2,079,667 (May 11, 1937).—A method of forming egg-containing trays or other articles of irregular contour from an aqueous suspension such as one containing about 2 per cent of pulp and 98 per cent of water, comprises immersing an irregular face of a porous body of stone-like material in a supply of the pulp and simultaneously exposing the other face to the action of a vacuum whereby pulp is progressively drawn from the suspension and progressively built up in a sheet of substantially uniform thickness. (Cl. 92-54).—A.P.-C.

Fiberboard. John D. Carter, assignor to Philadelphia Quartz Company. U. S. pat. 2,099,598 (Nov. 16, 1937).—The plies of a composite fiberboard are joined by means of a partly neutralized alkali silicate adhesive; and the adhesive is then rendered practically insoluble by keeping the board in a humid atmosphere at not less than 60 deg. C. for at least 45 min. (Cl. 154-40).—A.P.-C.

Device for the Manufacture of Plates, Sheets or Slabs of Various Properties From Vegetable Fibrous Pulp. Hermann Basler. U. S. pat. 2,095,118 (Oct. 5, 1937).—Apparatus for the manufacture of large sheets or slabs comprising a preshaping mold that has perforated base plates; suction can be applied beneath the base plates and pressure above. The preshaped slab is conveyed automatically to a finishing press. (Cl. 92-61).—A.P.-C.

Absorbent Board. Wochbl. Papierfabr. 68, no. 30:566; no. 33:622 (July 24, Aug. 14, 1937); B. I. P. C. 8:131.—The question is asked how absorbent board can be made upon cylinder machines. The only answer received advises beating the pulp free with medium-long fiber, low consistency upon the machine, and screen must be kept carefully clean, light pressure be applied, the boards, if possible, be placed between soft cloths in the press, and drying be carried out slowly and carefully.—C.J.W.

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Prepared by Clarence J. West, Chairman, Committee on Abstracts and Bibliography, TAPPI

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References to abstracts of periodical articles published in the *Technical Section* are preceded by the letter "A"; those to patents are indicated by the letter "P". Other entries refer to original articles published in this *Section;* the author entries for such articles are printed in capitals. No author entries are given for the abstracts or patents.

In order to facilitate reference to the individual numbers of the PAPER TRADE JOURNAL, the following table is given, showing the pages of the *Technical Section* appearing in each of the 26 numbers of Volume 106 of the PAPER TRADE JOURNAL (January to June, 1938):

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Waterproof Paper Bags

By J. Seiberlich[1]

In the last fifteen years paper bags have largely replaced barrels and textile bags.[2] The single paper bag was in turn replaced by the multiwall paper bags. The problem of protecting the multiwall paper bags against the absorption of water vapors has been solved in a manner more or less satisfactory to the customer, various processes being devised for the moisture-proof impregnation of the paper used. A similar situation has obtained in the cellophane industry. The process described here is used in the moisture-proof cellophane industry but is also to be highly recommended for coating paper because of its simplicity, economy, and effectiveness.

It is well known at the present time that both paper and cellophane are extensively used in the packing industry. But both have to some extent, the property of absorbing water from the air. In order to obviate this defect it has been proposed to coat these materials with lacquers. For this purpose, lacquers made from nitro-cellulose, cellulose acetate, etc., containing additions of plasticizers, resins and waxes have been in use. After the evaporation of the solvents there remains on the surface of the material a thin film of lacquer, which renders the material quite impervious to water and protects it from absorbing and also from giving off water. The performance of this process is however attended with certain difficulties and also requires extensive apparatus for evaporation and recovering of the solvents.

It is not easy to eliminate the solvents completely, since this has to be effected at an elevated temperature at which the coated materials often become brittle. Nevertheless, the complete elimination of the solvents is essential, since the material coated must be free from odor, especially for packing foodstuffs and the like. A further difficulty of this process consists in the fact that the layer of cellulose compound can easily be taken off, if water or water vapors penetrate between the coated paper or film and the varnish layer; this effect always takes place on the cut edges. There has been a pressing need for a way to effect this waterproofing not only more simply but also more economically, since the loss of solvents is very considerable.

The best example of moisture proofed substances are found in nature.

Wax Coating

As is well known, many vegetables and fruits are covered with a thin layer of vegetable waxes, which are not made up of uniform chemical compounds, and are probably formed by the plants from the carbohydrates. The thin wax layer coats the surface (epidermis) of the plants or fruits to prevent drying out of the tissues beneath the surface and also to protect the tissues against decomposition and disease resulting from too much water absorption. If the vegetable wax from some plants is carefully taken off and a paper or a cellulose hydrate film is covered with this wax, the moistureproof property of the material coated improves. It is impossible by placing

[1] Member TAPPI, 49 Longwood Ave., Brookline, Mass.
[2] Lahey, R. W., *Chem. Met. Eng.* 43 377 (1936).

materials so treated in water to take off the wax layer as can easily be done with cellulose ester lacquers.

We may apply this knowledge in moisture proofing paper by coating it with a very tenuous layer of wax. Theoretically a monomolecular layer of wax should be enough to prevent water absorption. For this purpose coatings with a thickness of less than 0.001 mm. are sufficient. In this matter paper material can be provided with protective coatings which are practically impervious to moisture and water vapors and at the same time are flexible and transparent.

Natural or artificial resins or other non-volatile organic substances which will not mix with water but have the property of forming homogeneous mixtures with the waxes and furnishing a transparent coating may also be advantageously incorporated to improve the melting point of the mixture and also its hardness. In carrying out the new process the following mixture has proved especially suitable:

Carnauba wax	20	parts
Ceresine	5	"
Vaseline	10	"
Colophony	5	"

These compounds may be melted down to a homogeneous liquid mass which is employed for application on the paper material. Important for the use of this mass is the production of a very uniform coat. This can be done with the apparatus shown in Fig. 1.

The paper material (1) is unwound from the roller (2), and is first led past the rotary roller brushes (3) which are supplied with the wax mixture by heated, rotating rollers (4) deeping into a trough (5), filled with the molten wax mixture. Inside of the trough (5) are heating tubes (6) for liquefying the wax. The roller brushes (3) apply the liquid wax over both sides of the paper material (1). The paper material (1), the entire width of which is coated with wax, is then passed by means of the guide rollers (8) to three serially disposed rotary cylinders (9), (10), (11), and thence to the winding-up roller (12). On the cylinders the wax coated sides are swept by rotary brushes (13) and (14) which remove any surplus of wax and polish the surface at the same time. In order to improve the uniformity of the mechanical rubbing of the wax coating on the paper material (1) the roller brushes (3) may be given an axially reciprocating motion in addition to their rotary motion. The moving parts of the whole device can be actuated from a common motor shaft.

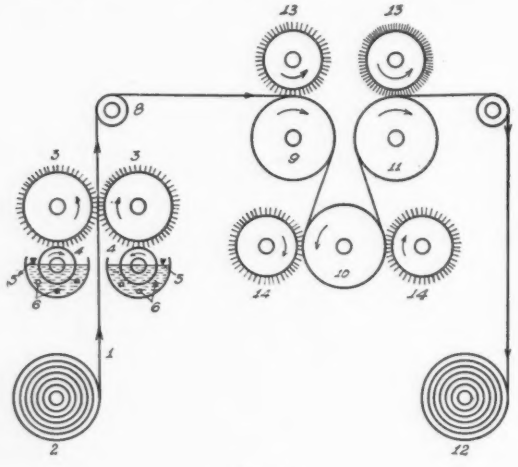
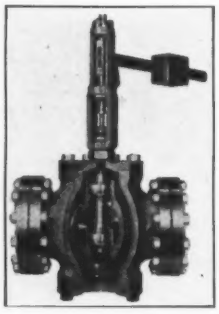


FIG. 1.

New Cash Standard Valves

For use with steam, air, oil, water (hot or cold), and most any gases—the Series 42 Balanced Lever Valves, announced by A. W. Cash Company, Decatur, Ill., more than meet the requirements of the fussiest buyers. In type 42-R Valve illustrated, the roller guided top works insuring free valve movement, perfect valve stem alignment, tight seating, longer packing life, and minimum of friction. Valve stem roller guided top and bottom. Nitralloy rollers and roller pins. No lost motion. Double or single seat. Hefty renewable seat rings. Weighty walls. Uniformity throughout and precision machined. Any type inner valve: (1) parabolic type; (2) flat type with bevel seat; (3) V-port type with bevel seat; and (4) V-port type, non seating. Large capacity. Available any size, any materials, ½ to 3 inches screwed ends; 1 to 12 inch flanged ends (any type). When used with Series 90 or Series 100 Controllers, they control, automatically, inflow or outflow (reduction, relief, differential pressure, rate of flow, liquid level). Bulletins No. 963 and 965, which give a more complete description may be had on application.



Facial Tissue Roll Equipment

The Dietz Machine Works of Philadelphia have recently brought out a new converting machine especially adapted for making roll facial tissue, in toilet and towel sizes. It has been thoroughly tested and found to be very satisfactory by users. Many new features are built into the machine such as positive perforating, spring slitters, new design drum winder, and spring spreader roll.

All three operations produce an excellent quality of work. The positive perforating is accomplished without the aid of such crutches as inserts of metal, rubber or wood in cylinder slots. For this reason any width of roll may be slit by adjusting slitters and using perforating blades with required spacing, without necessity of changing cylinders. The rewinding is under control of machine adjustments in several ways, to make good looking firm rolls, without inter-weave difficulties.

As yet no facial tissue has been found that could not be successfully converted, regardless of amount of crepe or low tensile strength. The outstanding quality of work done by this machine on difficult papers without operating troubles is such as to bring it to the fore-front for this class of work.

This machine is not limited to facial tissue work, but may also be employed to advantage for making semi-hard rolls of sulphite crepe and similar toilet tissues, as well as paper towel rolls. The positive perforating equipment is particularly valuable for the tough fibrous towels, of which many kinds are being made.

As always, the Dietz Machine Works are willing to build these machines in any possible combination of sizes and equipments, to suit specific needs.

Imports of Paper and Paper Stock

Giving Manifests of New York, Boston, Philadelphia and Other Ports, of Newsprint, Wrapping, Writing, Coated, Blotting, Tissue, Strawboard Wallboard, Cigarette Papers, Sulphite, Kraft and Ground Wood Pulp

NEW YORK IMPORTS

WEEK ENDING JULY 16, 1938

SUMMARY

Cigarette paper....46 bls., 403 cs.
Wall paper....26 cs.
Paper hangings....1 cs.
Newsprint....16,525 rolls
Printing paper....51 rolls, 103 cs.
Wrapping paper....31 rolls, 6 cs.
Packing paper....106 cs.
Drawing paper....4 cs.
Filter paper....28 cs.
Vellum paper....16 cs.
Surface coated baryta paper....100 crates, 29 cs.
Metal covered paper....44 cs.
Photo paper....6 cs.
Decalcomania paper....2 cs.
Decalcomanias....6 cs.
Tissue paper....4 cs.
Stencil paper....1 cs.
Paper & Envelopes....5 cs.
Tracing paper....1 cs.
Parchment paper....21 cs.
Card board....3 cs.
Paper tubes....49 cs.
Miscellaneous paper....696 rolls, 73 bls., 35 cs.

CIGARETTE PAPER

Champagne Paper Corp., *Pipestone County,* Havre, 401 cs.
De Mauduit Paper Corp., *Normandie,* Havre, 2 cs.
Max Speigel & Son, *Barbarigo,* Genoa, 46 bls.

WALL PAPER

S. K. Lonegren, *Drottningholm,* Gothenburg, 3 cs.
Lansen Naeve Corp., *Normandie,* Havre, 8 cs.
Gondrand Shipping Co., *Pr. Roosevelt,* Havre, 15 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., *American Trader,* London, 1 cs.

NEWSPRINT

Clinton Paper Co., *Drottningholm,* Gothenburg, 152 rolls.
News Syndicate Co., Inc., *Brand,* Comeau Bay, 5794 rolls.
News Syndicate Co., Inc., *Louisianan,* Comeau Bay, 5835 rolls.
International Paper Co., *International # 1,* Gatineau, 352 rolls.
H. G. Craig Co., Inc., *Newscarrier,* Donnacona, 303 rolls.
Newspaper & Magazine Paper Corp., *Svaneholm,* Norrkoping, 1643 rolls.
Gilman Paper Co., by same, 378 rolls.
Boston Paper Board Co., by same, 93 rolls.
Clinton Paper Co., by same, 72 rolls.
Jay Madden Corp., *Mormactide,* Wiborg, 512 rolls.
——, *Oslofjord,* Oslo, 119 rolls.
Perkins Goodwin & Co., *Hamburg,* Hamburg, 472 rolls.
Jay Madden Corp., by same, 238 rolls.
International Paper Co., *G. T. D.,* Gatineau, 317 rolls.
N. Y. Evening Journal, *Pr. Roosevelt,* Hamburg, 245 rolls.

PRINTING PAPER

Japan Paper Co., *American Trader,* London, 1 cs.
R. J. Saunders, *Aquitania,* Southampton, 3 cs.
E. Dietzgen & Co., *Hamburg,* Hamburg, 7 cs.
Dingelstedt & Co., *Hamburg,* Bremen, 51 cs., 51 rolls.
I. A. Consmiller, by same, 26 cs.
Senefelder Co., Inc., *Pr. Roosevelt,* Hamburg, 15 cs.

WRAPPING PAPER

——, *American Trader,* London, 4 cs. (waxed).
Japan Paper Co., *Gerolstein,* Antwerp, 2 cs.
Jay Madden Corp., *Pr. Roosevelt,* Hamburg, 31 rolls.

PACKING PAPER

Saentis, Inc., *Hamburg,* Hamburg, 102 cs.
Roberts Cushman Co., *Barbarigo,* Genoa, 4 cs.

DRAWING PAPER

H. Reeve Angel & Co., Inc., *American Trader,* London, 4 cs.

FILTER PAPER

H. Reeve Angel & Co., Inc., *American Trader,* London, 13 cs.
H. Reeve Angel & Co., Inc., *Normandie,* Havre, 15 cs.

VELLUM PAPER

——, *Barbarigo,* Genoa, 16 cs.

SURFACE COATED BARYTA PAPER

Globe Shipping Co., *Hamburg,* Bremen, 100 crates, 11 cs.
L. A. Consmiller, by same, 18 cs.

METAL COVERED PAPER

K. Pauli Co., *Hamburg,* Bremen, 18 cs.
Winter Wolff & Co., *Pr. Roosevelt,* Hamburg, 26 cs.

PHOTO PAPER

J. J. Gavin & Co., *Aquitania,* Southampton, 6 cs. (unsensitized).

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., *Samaria,* Liverpool, 1 cs. (duplex), 1 cs. (simplex).

DECALCOMANIAS

Sellers Transportation Co., *Hamburg,* Hamburg, 6 cs.

TISSUE PAPER

Tricolator Co., *Kosei Maru,* Kobe, 2 cs.
W. J. Byrnes & Co., *Aquitania,* Southampton, 1 cs.
B. F. Drakenfeld & Co., *Samaria,* Liverpool, 1 cs.

STENCIL PAPER

American Express Co., *American Trader,* London, 1 cs.

PAPER & ENVELOPES

Sales Factors Corp., *American Trader,* London, 5 cs.

TRACING PAPER

E. Dietzgen & Co., *Hamburg,* Hamburg, 1 cs.

PARCHMENT PAPER

E. Dietzgen & Co., *Hamburg,* Hamburg, 21 cs. (imitation).

CARD BOARD

Metropolitan Importing & Manfg. Co., *Pr. Roosevelt,* Hamburg, 3 cs.

PAPER TUBES

——, *Hamburg,* Hamburg, 49 cs.

MISCELLANEOUS PAPER

T. N. Fairbanks Co., *Nako Maru,* Yokohama, 7 cs.
Clay Adams Co., by same, 4 cs.
Japan Paper Co., *Marchen Maersk,* Kobe, 24 cs.
——, *Drottningholm,* Gothenburg, 241 rolls.
The Borregaard Co., Inc., by same, 33 bls., 455 rolls.
E. Fougera & Co., *Normandie,* Havre, 40 bls.

RAGS, BAGGINGS

E. J. Keller Co., Inc., *Pipestone County,* ——, 63 bls. rags.
Hughes Fawcett, Inc., *Caledonia,* Glasgow, 10 bls. flax waste.
Banco Coml. Italiane Trust Co., *American Trader,* London, 63 bls. bagging.
Chase National Bank, *Quaker City,* Manchester, 114 bls. bagging.
Joe Levy & Son, *Siboney,* Havana, 13 bls. rags.
American Express Co., *Robert Maersk,* Antwerp, 139 bls. rags.
Keene, Inc., by same, 133 bls. rags.
Castle & Overton, Inc., *West Cusseta,* Havre, 244 bls. rags.
Richard Shipping Co., *West Cusseta,* Dunkirk, 36 bls. rags.
F. Stern, by same, 3 bls. flax waste.

GLUE STOCK, ETC.

——, *Samaria,* Liverpool, 84 bags picker waste.
N. L. Lederer, *Bilderdyk,* Rotterdam, 100 bags bone glue.
Banco Coml. Italiane Trust Co., *Barbarigo,* Trieste, 174 bls. glue stock.

OLD ROPE

Chase National Bank, *American Trader*, London, 66 coils.
Darmstadt Scott & Courtney, *Quaker City*, Manchester, 81 coils.
W. Steck & Co., *Bilderdyk*, Rotterdam, 96 coils.

CHINA CLAY

Whitaker Clark & Daniels, Inc., *Statendam*, Rotterdam, 260 bags.

WOOD PULP

Pulp Sales Corp., *Svancholm*, Gothenburg, 1000 bls. sulphate, 167 tons.
International Paper Co., *Heimgar*, Sheet Harbor, N.S., 1608 cords pulpwood.
A. Giese & Son, *Statendam*, Rotterdam, 100 bls. wood pulp.
Pulp Sales Corp., *Mormactide*, Wiborg, 1524 bls. sulphate, 304 tons.
Pulp Sales Corp., *Mormactide*, Rauma, 840 bls. sulphate, 150 tons.
———, *Oslofjord*, Drammen, 125 bls. sulphite.
The Borregaard Co., Inc., *Oslofjord*, Sarpsborg, 1008 bls. sulphate.
Bulkley Dunton Pulp Co., Inc., *Helgoy*, ———, 2550 bls. sulphate, 510 tons; 2470 bls. sulphite, 421 tons.
Johaneson Wales & Sparre, Inc., *Helgoy*, Sundsvall, 960 bls. sulphite, 192 tons.
Johaneson Wales & Sparre, Inc., *Helgoy*, Hernosand, 1750 bls. sulphate, 250 tons.
———, by same, 3210 bls. sulphate, 535 tons.
Shroder Banking Corp., by same, 2250 bls. sulphite, 375 tons; 1500 bls. sulphate, 250 tons.
Pagel Horton & Co., Inc., by same, 1500 bls. sulphate, 250 tons.
Pulp Sales Corp., *Mormacsea*, Wiborg, 800 bls. mechanically ground pulp, 160 tons.
Lagerloef Trading Co., *Mormacsea*, Rauma, 737 bls. mechanically ground pulp, 147 tons.
Castle & Overton, Inc., *Hamburg*, Hamburg, 2610 bls. woodpulp, 522 tons.
M. Sone, *Hamburg*, Bremen, 508 bls. woodpulp, 101 tons.
Brown Bros., Harriman & Co., Inc., *Barbarigo*, Trieste, 525 bls. sulphite.
Pagel Horton & Co., Inc., *Heddernheim*, Gefle, 500 bls. sulphite, 1665 bls. sulphate.
———, *Heddernheim*, Iggesund, 2550 bls. sulphate.
Perkins Goodwin & Co., *Heddernheim*, Sundsvall, 150 bls. sulphite, 300 bls. sulphate.
Irving Trust Co., *Heddernheim*, Hernosand, 600 bls. sulphite.
Central Hanover Bank Trust Co., by same, 600 bls. sulphite.
———, by same, 150 bls. sulphite.
Price & Pierce, Ltd., by same, 150 bls. unbleached sulphate.
E. M. Sergeant Pulp & Chemical Co., by same, 500 bls. sulphite.
Bank of N. Y. Trust Co., by same, 300 bls. sulphite.
Gottesman & Co., Inc., by same, 2400 bls. unbleached sulphate.
Parsons & Whittemore, Inc., *Hansa*, ———, 333 bls. wood pulp.

WOOD PULP BOARDS

Jay Madden Corp., *Mormactide*, Wiborg, 200 rolls, 68 tons.
———, by same, 204 rolls, 52 tons.
———, *Hamburg*, Hamburg, 50 cases.
———, *Hamburg*, Bremen, 120 bls., 15 tons.

NEWARK IMPORTS

WEEK ENDING JULY 16, 1938

H. G. Craig Co., Inc., *Donpaco*, Donnacona, 325 rolls newsprint.

ALBANY IMPORTS

WEEK ENDING JULY 16, 1938

Price & Pierce, Ltd., *Mormactide*, Stockholm, 600 bls. sulphite, 100 tons.
Gottesman & Co., Inc., by same, 100 bls. bleached sulphite, 100 tons.
Bulkley Dunton Pulp Co., Inc., *Mormactide*, ———, 1800 bls. sulphite, 300 tons.
Pulp Sales Corp., *Mormactide*, Wiborg, 2404 bls. sulphite, 457 tons.
Pulp Sales Corp., by same, 204 bls. sulphate, 34 tons.
Pulp Sales Corp., *Mormactide*, Rauma, 1742 bls. sulphate, 290 tons.
Pulp Sales Corp., by same, 1240 bls. sulphite, 206 tons.
Johaneson Wales & Sparre, Inc., *Helgoy*, Sundsvall, 3750 bls. sulphite, 750 tons.
Pagel Horton & Co., Inc., *Heddernheim*, Gefle, 750 bls. sulphate, 9500 bls. sulphite.
———, by same, 2125 bls. sulphite.
———, *Heddernheim*, Iggesund, 825 bls. sulphite.
Perkins Goodwin & Co., *Heddernheim*, Sundsvall, 1200 bls. sulphite, 200 tons.
Gottesman & Co., Inc., by same, 2610 bls. unbleached sulphite, 435 tons.
———, by same, 212 bdls. wall board.
Bank of N. Y. Trust Co., *Heddernheim*, Hernosand, 600 bls. sulphite, 2010 bls. kraft pulp.
Gottesman & Co., Inc., by same, 3000 bls. unbleached sulphite.

BOSTON IMPORTS

WEEK ENDING JULY 16, 1938

Boston Paper Board Co., *Svancholm*, Norrkoping, 62 rolls newsprint.
Beech Nut Packing Co., *Svancholm*, Gothenburg, 242 rolls paper.
———, by same, 38 bls. wall board.
The Borregard Co., Inc., by same, 750 bls. dry chemical pulp.
Perkins Goodwin & Co., by same, 2654 bls. sulphate.
———, *West Cusseta*, Dunkirk, 28 bls. rags.
Parsons & Whittemore, Inc., *Kellerwald*, ———, 1000 bls. wood pulp.
Price & Pierce, Ltd., *Trafalgar*, ———, 750 bls. bleached sulphite.

NEW LONDON IMPORTS

WEEK ENDING JULY 16, 1938

Price & Pierce, Ltd., *Alssund*, ———, 150 bls. unbleached sulphate, 2850 bls. unbleached sulphite.

PHILADELPHIA IMPORTS

WEEK ENDING JULY 16, 1938

———, *Black Hawk*, Antwerp, 31 bls. wrapping paper.
Keer Maurer Co., *Robert Maersk*, London, 131 coils old rope.
———, by same, 121 coils old rope.
Bulkley Dunton Pulp Co., Inc., *Helgoy*, ———, 1000 bls. sulphate, 200 tons.
Shroder Banking Corp., *Helgoy*, Hernosand, 2250 bls. sulphite, 342 tons.
Perkins Goodwin & Co., *Helgoy*, Sundsvall, 360 bls. sulphate, 60 tons.
Atterbury Bros., Inc., by same, 600 bls. dry pulp, 100 tons.
Mead Sales Co., Inc., by same, 2880 bls. sulphite, 480 tons.
Johaneson Wales & Sparre, Inc., by same, 940 bls. sulphite, 178 tons.
Parsons & Whittemore, Inc., by same, 58 pkgs. newsprint.
F. Whitaker & Co., *Mormacsea*, Copenhagen, 42 bls. rags.
Chase National Bank, *Barbarigo*, Trieste, 6471 bls. wood pulp.

WILMINGTON IMPORTS

WEEK ENDING JULY 16, 1938

Pulp Sales Corp., *Mormacsea*, Wiborg, 4980 bls. sulphite, 996 tons.
Pulp Sales Corp., *Mormacsea*, Rauma, 5208 Bls. sulphite, 885 tons.

BALTIMORE IMPORTS

WEEK ENDING JULY 16, 1938

Bulkley Dunton Pulp Co., Inc., *Helgoy*, ———, 250 bls. sulphite, 50 tons; 2625 bls. sulphite, 525 tons.
———, *Helgoy*, Hernosand, 4440 bls. sulphate, 740 tons.
Shroder Banking Corp., by same, 150 bls. sulphate, 25 tons.
M. Sone, *Helgoy*, Sundsvall, 3000 bls. dry pulp, 500 tons.
Johaneson Wales & Sparre, Inc., by same, 900 bls. sulphate, 150 tons; 625 bls. sulphite, 125 tons.
Mead Sales Co., Inc., by same, 6525 bls. sulphite, 1160 tons.
Parsons & Whittemore, Inc., by same, 133 rolls newsprint.
Lagerloef Trading Co., *Mormacsea*, Helsingfors, 520 bls. mechanically ground pulp, 104 tons.
Castle & Overton, Inc., *Mormacsea*, Wiborg, 1092 bls. wood pulp, 218 tons.
W. H. Masson, *Pipestone County*, Havre, 4 cs. filter paper.

NORFOLK IMPORTS

WEEK ENDING JULY 16, 1938

National City Bank, *Quaker City*, Liverpool, 500 bls. bagging.

NEW ORLEANS IMPORTS

WEEK ENDING JULY 16, 1938

Parsons & Whittemore, Inc., *Aachen*, ———, 1067 bls. wood pulp.
Pagel Horton & Co., Inc., *Sturcholm*, Sweden, 5500 bls. wood pulp.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, July 20, 1938.

Improvement in practically all grades of paper is reported by the wholesale paper market for the current week. Although very little increase in demand for some grades of paper is reported, more orders are being received for the majority of grades than for some time past. More optimism is reflected throughout distribution channels and the prevailing opinion is that the present improvement will continue to result in a substantial increase in production and consumer demand between August 15 and the first of September.

The production ratio of over two hundred reporting mills for the week ended July 9, was 57.0 per cent, compared to 69.8 per cent for the corresponding week last year, and with 64.9 per cent for July 1935. With small inventories generally reported, production and distribution are fairly well balanced. Although the late downward revision in prices of many grades of paper has been criticized as unwarranted by the relatively high production costs, many in the trade hold the opinion that some readjustment in prices were necessary to stimulate buying.

The demand for newsprint continues moderately good, though consumption is off some 12 per cent and production for the year has been severely curtailed. Prices of newsprint remain firm and while one important producer has set a price of $48 per ton for the second half of this year, the announced and quoted prices of other newsprint mills continue to remain at $50 per ton.

The demand for many grades of sulphite papers is reported as improved and more orders are being received than for some time past. Improvement in the ground wood division of the market is also reported this week, with more orders being placed by jobbers and wholesalers. Conditions in the writing paper division are improved and a steady and gradual improvement is expected in most grades of bond papers.

Chemical Pulp

The chemical pulp market reports conditions as little changed from the preceding week. Mill demand continues light. Prices are less firm in some of the standard grades and slightly lower quotations are offered on some grades of easy bleaching and strong unbleached sulphite pulps of standard quality. Small reductions in the prices of some grades of light and strong kraft and in No. 1 kraft are also reported for the current week. No. 2 kraft is now down to $33 per ton, while the highest grades in this type of pulp are offered at $36 per ton, on dock, Atlantic ports. No other noteworthy changes in the quoted market prices of any other grades of pulp have occurred to date.

Mechanical Pulp

Demand for mechanical pulp is light. No price changes in the standard grades of domestic, Canadian, or European brands are reported for the week.

Old Rope and Bagging

The old rope market is practically inactive and prices remain at virtually nominal quotations. Very little business is reported in bagging and prices continue unchanged at prevailing levels.

Rags

With the exception of new shirt cuttings, of which stocks are reported low due to the lack of business in the cutting-up-trades, the demand for new and old domestic rags continues light. No change in prices are reported this week. The foreign rag market is inactive and prices are strictly nominal.

Waste Paper

A slight improvement in a few grades of waste paper are reported for the current week, but the general tone of the market is weak and no definite improvement is expected in the immediate future. The prices of No. 1 mixed paper are higher this week, as demand has improved, and this grade is currently quoted at from .10 to .15 cents.

Twine

Conditions in the twine market are reported as a little improved this week. Demand continues light and no change in prices are reported from prevailing market quotations.

Belgian Industry in Bad Condition

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 6, 1938—It is reported that the Belgian paper industry has never been in as bad a condition as at present according to reports from the office of the American Consulate, Brussels. While 1934 was considered to be the worst year that the industry had experienced, the present depression has reached even greater proportions. The current demand is not heavy enough to absorb stocks on hand even if offered at relatively low prices, but wholesalers appear to be unwilling to take a loss and cut their prices to a figure at which they can compete with lower-priced imported paper sold on the Belgian market.

The Belgian paper industry is handicapped inasmuch as it is necessary to purchase a large part of its wood pulp supplies from the Scandinavian countries. Scandinavian pulp exporters have held prices for pulp relatively high, and Belgian paper manufacturers find it extremely difficult to market their paper at a profitable figure and meet the prices quoted by Scandinavian paper manufacturers on either the local or foreign markets.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, July 20, 1938.

BLANC FIXE—Quotations on blanc fixe are firm and conform to prevailing prices. The pulp is quoted at from $42.50 to $45 per ton, in bulk; the powder is offered at from 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER—The prices of bleaching powder are unchanged at prevailing quotations. Bleaching powder is quoted at from $2 to $2.25 per 100 pounds, in drums, at works.

CASEIN—The demand for casein is reported as fair. Prices are unchanged for the current week. Domestic ground casein is quoted at 8½ cents per pound; domestic finely ground at 9 cents per pound; all prices in bags, car lot quantities.

CAUSTIC SODA—Prices of caustic soda continue unchanged and conform to prevailing quotations. Solid caustic soda is quoted at from $2.10 to $2.30 per 100 pounds; flake and ground at from $2.50 to $2.70 per 100 pounds, in drums, at works.

CHINA CLAY—The demand for china clay is reported as moderate. Prices continue unchanged at prevailing quotations. Imported clay is quoted at from $14.50 to $25 per ton, ship side. Domestic filler clay is quoted at from $6.50 to $12 per ton; coating clay at from $11 to $22 per ton, at mines.

CHLORINE—Quotations on chlorine are unchanged at prevailing prices. Chlorine is quoted at $2.15 per 100 pounds, in single-unit tank cars, f.o.b., works.

ROSIN—The demand for rosin continues to be reported as fair. Prices of some grades are slightly lower for the current week. "G" gum rosin is quoted at $4.65; "FF" wood rosin at $4.45 per 280 pounds, gross weight, in barrels, at Savannah. Seventy per cent gum rosin size is offered at $2.65 per 100 pounds, f.o.b., shipping point.

SALT CAKE—Prices of salt cake are firm and unchanged at prevailing quotations. Quotations range at from $12 to $13.50 per ton; chrome salt cake at from $11 to $12 per ton, f.o.b., shipping point. Imported salt cake is quoted at from $14.50 to $15 per ton, Gulf or Atlantic Seaboard, on dock.

SODA ASH—Quotations on soda ash continue firm and unchanged at prevailing prices. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $.90; in bags, $1.05; and in barrels, $1.35.

STARCH—The corn starch market is reported as moderately firm for the week. Globe pearl is quoted at $2.65 per 100 pounds, in bags, and at $2.90 in barrels. Special paper starch is quoted at $2.75 per 100 pounds, in bags, and at $3.00 in barrels. All prices in car lots, f.o.b., Chicago.

SULPHATE OF ALUMINA—Quotations on sulphate of alumina continue unchanged at prevailing prices. The commercial grades are quoted at $1.15 per 100 pounds; iron free at $1.30 per 100 pounds, in barrels, car lot quantities, f.o.b., works.

SULPHUR—The prices of sulphur are unchanged and conform to prevailing quotations. Annual contracts are quoted at $18 per long ton, f.o.b., cars at mines. Spot and nearby car lots are offered at $21 per ton.

TALC—The prices of talc are unchanged at prevailing quotations. Domestic talc is offered at from $15 to $18 per ton, Eastern mines. Imported talc is quoted at from $25 to $40 per ton, on dock.

Market Quotations

Paper

(Delivered New York

News, per ton—
Roll, contract.....$50.00 @ —
Sheets .....58.00 @ —

Kraft—per cwt.—Delivered Zone A

No. 1 Northern....$5.25 @ —
Superstandard .... 4.12½ @ 5.00
Northern Standard Wrapping ..... 4.50 @ —
Standard Wrapping 4.00 @ —

Tissues—Per Ream—Carlots

White No. 1..... .92½ @ —
White No. 1 M. G. .90 @ —
White No. 1½.... .67½ @ —
White No. 2..... .60 @ —
Anti-Tarnish M. G. .75 @ —
Colored ..... .87½ @ —
Kraft ..... .75 @ —
Manila ..... .60 @ —
Unbl. Toilet. 1 M.. 3.20 @ —
Bleached Toilet.... 5.26 @ —

Paper Towels—

Unbleached ..... 1.80 @ —
Bleached ..... 2.10 @ —

Manila—per cwt.—C. l. f. a.

No. 1 Jute.....$8.25 @$9.75
No. 2 Jute..... 7.50 @ 9.00
No. 1 Manila Wrapping, 35 lb..... 5.00 @ —
No. 2 Manila Wrapping, 35 lb..... 4.75 @ —

Boards, per ton—

News .....$27.50 @$30.00
Chip ..... 27.50 @ 30.00
Sgl. Mla. Ll. Chip. 42.50 @ —
Jute Lined Chip... 45.00 @ —
White Pat. Coated. 55.00 @ 57.50
Kraft Liners..... 45.00 @ 50.00
Binders Boards..... 71.00 @77.00

The following are representative of distributors' resale prices:—

Rag Content Bonds and Ledgers—
White, Assorted Items,
Delivered in Zone 1:

	Bonds	Ledgers
100% Rag Ext. No. 1.	$39.10@$46.00	$40.25@$47.25
100% Rag .	31.05@ 36.50	32.20@ 37.75
85% Rag		29.90@ 35.00
75% Rag .	23.60@ 27.75	24.75@ 29.00
65% Rag		21.65@ 26.25
50% Rag .	17.55@ 21.50	18.70@ 22.75
25% Rag .	14.65@ 17.75	15.80@ 19.25

Colors at $1.00 cwt. extra

Sulphite Bonds and Ledgers—
White, Assorted Items
Delivered in Zone 1

	Bonds	Ledgers
No. 1...	$8.80@$10.75	$9.95@$12.00
No. 2...	7.90@ 9.50	9.05@ 11.00
No. 4...	7.00@ 8.50	8.20@ 10.00

Colors $1.00 cwt. extra.

Free Sheet Book Papers—
White, Cased Paper

Delivered in Zone 1:

No. 1 Glossy Coated..	$10.80@$12.25
No. 2 Glossy Coated..	9.25@ 10.50
No. 3 Glossy Coated..	8.15@ 9.25
No. 4 Glossy Coated..	7.65@ 8.75
No. 1 Antique (watermarked)	7.65@ 8.75
No. 2 Offset.....	7.00@ 8.00
A Grade E. F.....	6.80@ 7.75
A Grade S. & S. C....	7.05@ 8.00
B Grade E. F.....	6.25@ 7.25
B Grade S. & S. C....	6.50@ 7.50
C Grade E. F.....	6.00@ 7.00
C Grade S. & S. C....	6.25@ 7.25
D Grade E. F.....	5.70@ 6.75
D Grade S. & S. C....	5.95@ 7.00

Ivory & India at $.50 cwt. extra.

Mechanical Pulp

(On Dock, Atlantic Ports

No. 1 Imported—
Moist .....27.00 @30.00
Dry .....27.00 @30.00

(Delivered)

No. 1 Domestic and Canadian .....29.00 @33.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—
Prime Bleached Sulphite ..... 2.50 @ 3.00
Prime Qualities—
Easy-Bleaching Sulphite ..... 2.15 @ 2.25
Strong Unbleached Sulphite ..... 1.85 @ 2.15

(On Dock, Atlantic Ports)

Kraft Bleached..... 2.75 @ 3.00
Kraft Light & Strong 2.00 @ 2.15
Kraft No. 1..... 1.85 @ 2.00
Kraft No. 2..... 1.65 @ 1.80

(F.o.b. Pulp Mill)

Kraft Domestic..... 1.75 @ 2.25

(Delivered)

Soda Bleached..... 2.70 @ —

Add 60 cents per short ton, dock charges for Albany; $2.50 for Lake Ports East and $3.50 for Lake Ports West of Mackinac Straits

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—
New White, No. 1. 6.25 @ 6.50
Silesias No. 1..... 4.00 @ 4.25
New Unbleached.. 6.25 @ 6.50
Blue Overall..... 4.50 @ 4.75
Fancy ..... 2.10 @ 2.25
Washables ..... 1.60 @ 1.70
Mixed Khaki Cuttings ..... 3.25 @ 3.75
O. D. Khaki Cuttings 4.00 @ 4.25

Old Rags

White, No. 1—
Repacked ..... 3.15 @ 3.40
Miscellaneous ..... 2.60 @ 2.75
White, No. 2—
Repacked ..... 2.10 @ 2.35
Miscellaneous ..... 1.70 @ 1.80
Thirds and Blues—
Repacked ..... 1.40 @ 1.50
Miscellaneous ..... 1.25 @ 1.30
Roofing Rags—
No. 1..... 1.00 @ 1.15
No. 2..... .75 @ .80
No. 3 (bagging)... .65 @ .70
No. 4..... .65 @ .70
No. 5A..... .65 @ .70

Foreign Rags

New Rags

New Dark Cuttings.. 2.25 @ 2.40
New Mixed Cuttings. 2.00 @ 2.20
New Light Silesias.. 5.50 @ 5.75
Light Flannelettes... 5.50 @ 5.75
New White Cuttings. 7.00 @ 7.50
New Light Oxford.. 4.00 @ 4.50
New Light Prints... 3.00 @ 3.25

Old Rags

No. 1 White Linens. 7.50 @ 8.50
No. 2 White Linens. 6.50 @ 7.50
No. 3 White Linens. 4.50 @ —

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No. 4 White Linens	2.25	@	3.25
No. 1 White Cotton	4.25	@	4.75
No. 2 White Cotton	3.25	@	3.75
No. 3 White Cotton	2.50	@	3.00
No. 4 White Cotton	1.90	@	2.20
Extra Light Prints	2.00	@	2.40
Ord. Light Prints	1.75	@	2.15
Med. Light Prints	1.55	@	1.95
Dutch Blue Cottons	2.25	@	2.50
French Blue Linens	3.00	@	—
Checks and Blues	2.00	@	—
Linsey Garments	1.90	@	2.00
Dark Cottons	1.50	@	1.60
Old Shopperies	1.30	@	1.45
New Shopperies	1.45	@	1.50
French Blues	2.25	@	2.50

Old Rope and Bagging

(Prices to Mill, f. o. b. N. Y.)

Gunny No. 1—			
Foreign	2.30	@	2.40
Domestic	2.25	@	2.35
Wool Tares, white	1.50	@	1.75
Wool Tares, heavy	1.55	@	1.80
Bright Bagging	1.45	@	1.50
Manila Rope—			
Foreign	2.50	@	2.75
Domestic	2.25	@	2.50
Jute Threads	2.75	@	3.00
Sisal Strings	1.40	@	1.50
Mixed Strings	.60	@	.70

Old Waste Papers

(F. o. b. New York)

Shavings—			
White Envelope Cuttings	2.50	@	2.60
Ordinary Hard White No. 1	1.90	@	2.00
Soft White No. 1	1.75	@	1.80
Soft White Extra	2.25	@	2.40
Flat Stock—			
Stitchless	.65	@	.70
Overissue Mag	.55	@	.60
Solid Flat Book	.45	@	.50
Crumbled No. 1	.35	@	.40
Ledger Stock White	1.00	@	1.10
Ledger Stock Colored	.55	@	.65
New B. B. Chips	.15	@	.20
Manila—			
New Env. Cut	1.40	@	1.50
New Cuttings	1.25	@	1.35
Old Kraft Machine— Compressed bales	.50	@	.60
News—			
No. 1 White News	1.15	@	1.35
Strictly Overissue	.40	@	.45
Strictly Folded	.20	@	.30
No. 1 Mixed Paper	.10	@	.15

Twines

(F. o. b. Mill)

(Soft Fiber)

Coarse Polished—			
India	.11	@	.13
White Hemp	.12	@	.14
Fine Polished—			
Fine India	.15	@	.17
Unpolished—			
Box	.08½	@	—
Paper Makers	.07½	@	.08½
Tube Rope	.09	@	.10
Wall Paper	.10	@	.11
Wrapping	.11	@	.13
Soft Fiber Rope	.09½	@	.11½
Cotton	.15	@	.20

(Hard Fiber)

Medium Java	.09	@	.10
Mex. Sisal	.08½	@	.09½
Manila	.18	@	.25
Domestic	2.25	@	2.50
Sisal Rope	1.65	@	1.85
Mixed Rope	.50	@	.75
Transmission Rope	1.60	@	1.85
Soft Jute Ropes	1.50	@	1.60
Jute Carpet Threads	.75	@	.90
Gunny Bagging—			
Foreign	2.25	@	2.30
Domestic	1.80	@	1.90
Bleachery Burlap	3.00	@	3.50
Scrap Burlap—			
Foreign	1.50	@	1.60
Domestic	1.25	@	1.50
Scrap Sisal	1.25	@	1.50
Scrap Sisal for Shredding	1.75	@	1.90
Wool Tares, Heavy	1.50	@	1.60
New Burlap Cuttings	1.75	@	2.00
Aust. Wool Pouches	2.75	@	3.00
Heavy baling bagging	1.75	@	1.90
Paper Mill Bagging	1.00	@	1.15
No. 2 Bagging	.60	@	.70

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.03	@	.03¼
New White No. 1	.06½	@	.06¾
New White No. 2	.05	@	.05½
New Light Flannelettes	.04¼	@	.04¾
Silesias No. 1	.04¼	@	.04¾
New Black Silesias	.03¾	@	.04
Silesias No. 1			
Soft Unbleached	.06	@	.06½
Blue Cheviots	.05	@	.05¾
Fancy	.03	@	.03¾
Washable	.02¾	@	.03
Cottons—According to grades—			
Blue Overalls	.04¾	@	.05
New Black, soft	.03¾	@	.04
Khaki Cuttings	.03¾	@	.03¾
D. D. Khaki	.04	@	.04½
Corduroy	.02¾	@	.03
New Canvas	.06¾	@	.07¼
B.V.D. Cuttings	—	@	.06½

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	—	@	2.71
Miscellaneous	2.50	@	2.75
White No. 2—			
Repacked	1.90	@	2.00
Miscellaneous	2.00	@	2.25
Twos and Blues	1.75	@	1.90
Third and Blues—			
Repacked	1.37½	@	1.75
Miscellaneous	1.25	@	1.40
Black Stockings	3.90	@	4.00
Roofing Stock—			
No. 1	1.00	@	1.10
No. 2	.75	@	.85
No. 3	.65	@	.70

Foreign Rags

(F. o. b. Boston)

Dark Cottons	1.00	@	1.05
Dutch Blues	2.65	@	2.75
New Checks and Blues	2.85	@	3.00
Old Fustians	2.25	@	2.50
Old Linsey Garments	2.20	@	2.25
New Silesias	6.00	@	6.30

PHILADELPHIA

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.05½	@	.06
New White, No. 2	.03½	@	.04
Light Silesias	.04	@	.04½
Silesias, No. 1	—	@	.04½
Black Silesias, soft	.03	@	.03½
New Unbleached	—	@	.06
Washable, No. 1	.01¾	@	.01½
Blue Overall	.04	@	.04½
Cottons—According to grades—			
Washable No. 2	.01	@	.01¼
New Blue	.01	@	.01¼
Fancy Percales	—	@	.02½
New Black Soft	.03	@	.03½
New Light Seconds	—	@	.04½
New Dark Seconds	.50	@	.75
Khaki Cuttings—			
No. 1 O. D.	.03½	@	.04
No. 2 Mixed	.02	@	.02½
Corduroy	—	@	.02
New Canvas	.05	@	.05¼
New Black Mixed	.02½	@	.02¾

Domestic Rags (Old)

White No. 1—			
Repacked	3.50	@	4.00
Miscellaneous	2.00	@	2.25
Thirds and Blues—			
Miscellaneous	1.00	@	1.25
Repacked	1.50	@	1.75
Black Stockings (Export)	3.00	@	3.50
Roofing Stock—			
Foreign No. 1	—	@	.75
Domestic No. 1	—	@	1.00
Domestic No. 2	—	@	.85
Roofing Bagging	—	@	.70

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.50	@	1.75
Domestic	1.50	@	1.75
Manila Rope	3.00	@	3.25
Sisal Rope	—	@	1.50
Mixed Rope	.75	@	1.00
Scrap—			
No. 1	—	@	1.50
No. 2	1.00	@	1.25
Wool Tares, heavy	3.25	@	3.50
Mixed Strings	1.00	@	1.10
No. 1 New Light Burlap	3.00	@	3.50
New Burlap Cuttings	1.75	@	2.00

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	2.15	@	2.20
No. 2 Hard White	2.00	@	2.10
No. 1 Soft White	1.80	@	1.90
No. 2 Soft White	1.25	@	1.30
No. 1 Mixed	.70	@	.75
Solid Ledger Stock	1.50	@	1.60
Ledger Stock, white	1.00	@	1.50
Ledger Stock, colored	.75	@	.80
No. 1 Books, heavy	.65	@	.70
Manila Cuttings	1.50	@	1.75
Print Manila	.30	@	.35
Container Manila	—	@	.40
Kraft Paper	.75	@	.80
No. 1 Mixed Paper	.15	@	.20
Straw Board Chip	.25	@	.30
Binders Board Chip	.25	@	.30
Corrugated Board	.50	@	.55
Overissue News	.50	@	.55
Old Newspapers	.25	@	.30

BOSTON

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	2.25	@	2.40
No. 1 Soft White	1.85	@	2.15
No. 2 Mixed	.75	@	.80
Solid Ledger Books	1.50	@	1.75
Overissue Ledger Stock	1.30	@	1.50
Mixed Ledgers	.85	@	.90
No. 1 Books, heavy	.65	@	.75
No. 1 Books, light	.65	@	.75
Crumpled Stitchless Book Stock	.55	@	.65
Manila Env. Cuttings	1.60	@	1.70
Manila Envelope Cuttings, extra quality	2.00	@	2.10
No. 1 Old Manila	.95	@	1.00
White Blank News	1.30	@	1.40
No. 1 Kraft	.90	@	—
Mixed Papers	.12½	@	.15
Print Manila	.45	@	.55
Container Manilas	.27½	@	—
Old Newspapers	.25	@	.32½
Paper Wool Strings	.75	@	—
Overissue News	.45	@	.50
Box Board Chips	.20	@	.25
Corrugated Boxes	.27½	@	.30
Kraft corrugated boxes	.65	@	.70
Screening Wrappers	.40	@	.45

Bagging

(F. o. b. Boston)

Manila Rope—			
Foreign	2.40	@	2.50

CHICAGO

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 White Envelope Cuttings	1.80	@	1.90
No. 1 Hard White	1.70	@	1.80
No. 1 Soft White	1.50	@	—
Ledger & Writings	.75	@	.80
Solid Books	.55	@	—
Blanks	.90	@	—
Krafts	.60	@	—
New Kraft Cuts	1.10	@	—
Manila Env. Cuts	Nominal		
Ex. No. 1 Manila	Nominal		
Print Manila	Nominal		
Overissue News	.35	@	—
Old Newspapers—			
No. 1 Folded News	.30	@	—
No. 1 Mixed Paper	.20	@	—
Roofing Stocks—			
No. 1	2.00	@	2.10
No. 2	1.85	@	2.00

TORONTO

Paper

Bonds and Ledgers

Delivered

No. 1 White	.36½	@	—
No. 1 Tints	.37½	@	—
No. 2 White	.26½	@	—
No. 2 Tints	.27½	@	—
No. 4 White	—	@	.1550
No. 4 Tints	16.50	@	—
No. 5 Bond—White	11.85	@	—
No. 5 Bond—Tints	12.85	@	—
No. 5 Bond—Golden Rod	13.35	@	—
No. 5 Ledger—White	.1185	@	—
No. 5 Ledger—Tints	.1285	@	—
No. 6 Bond—White	10.75	@	—
No. 6 Bond—Tints	11.25	@	—
No. 6 Bond—Golden Rod	12.75	@	—
No. 7 Bond—White	9.10	@	—
No. 7 Bond—Tints	9.60	@	—
No. 7 Bond—Golden Rod	11.10	@	—
Book—			
No. 1 M. F.	7.35	@	—
No. 2 M. F.	6.85	@	—
No. 3 M. F.	5.60	@	—
No. 1 S. C.	7.60	@	—
No. 2 S. C.	7.10	@	—
No. 3 S. C.	6.10	@	6.35
No. 1 Coated Book and Litho	12.50	@	—
No. 2 Coated Book and Litho	11.00	@	—
No. 3 Coated Book and Litho	10.00	@	—
Coated tinted	13.50	@	—
Wrapping—delivered—			
Rag Brown	4.85	@	5.55
White Wrap	4.00	@	—
"B" Manila	4.90	@	6.25
No. 1 Manila	5.50	@	7.00
Fiber	5.50	@	—
Kraft No. 2	5.50	@	—

(F. o. b. Cars, Toronto)

News per ton—			
Rolls (contract)	$50.00	@	—
Sheets	69.50	@	—

Pulp

Ground wood	27.00	@	—
Unbleached Sulphite	49.00	@	—
Book (Class 1)	59.00	@	—
Writing (Class 2)	57.00	@	—
Select (Class 3)	58.00	@	—
Kraft	48.00	@	—
Soda	54.00	@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	2.25	@	—
Soft White	2.15	@	—
White Blk. News	1.25	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	.80	@	—
Light and Crumpled Book Stock	.70	@	—
Ledgers and Writings	1.10	@	—
Manilas—			
New Manila Cut	1.35	@	—
Printed Manilas	.45	@	—
Kraft	.95	@	—
News and Scrap—			
Strictly Overissue	.50	@	—
Strictly Folded	.45	@	—
No. 1 Mixed Paper	.30	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.06½	@	.06¾
Fancy Shirt Cuttings	.02¼	@	.02½